SERVICE MANUAL

MODEL	DEST.
VPL-FX200U	US/CND
VPL-FX200E	AEP
VPL-FX200M	E

MODEL	DEST.
IFB-X2000E	AEP
PSS-2000	WORLD
SU-PJ2000	WORLD

DIFFERENCE-1

This manual described a point of difference only. Therefore, when make a servicing, refer to service manual of VPL-X2000U/E/M (9-929-611-01).

SPO3221

LCD DATA PROJECTOR

SONY

Difference of Contents

Model Name / Different Items	VPL-FX200U/FX200E/FX200M	VPL-X2000U/X2000E/X2000M
3-4-8. addition Component Level different	USE (VPL-FX200U ONLY)	NOT USE
M COMPL	A-1306-584-A	A-1306-561-A
HOOD ASSY	X-4036-941-A	X-4036-263-1
POWER BLOCK	1-468-439-11	1-468-286-11
OPTICAL BLOCK	1-758-371-11	1-758-234-11
OPERATING INSTRUCTIONS	3-867-467-11	3-865-344-11
OPERATING INSTRUCTIONS	3-867-467-21	3-865-344-21
OPERATING INSTRUCTIONS	3-867-467-31	3-865-344-31
MANUAL INSTALLATION	3-867-468-11	3-865-345-11
MANUAL INSTALLATION	3-867-468-21	3-865-345-21
MANUAL INSTALLATION	3-867-468-31	3-865-345-31

ADDITION

Section 3
SET-UP Adjustments (VPL-X2000U/X2000E/X2000M: Page 3-3)

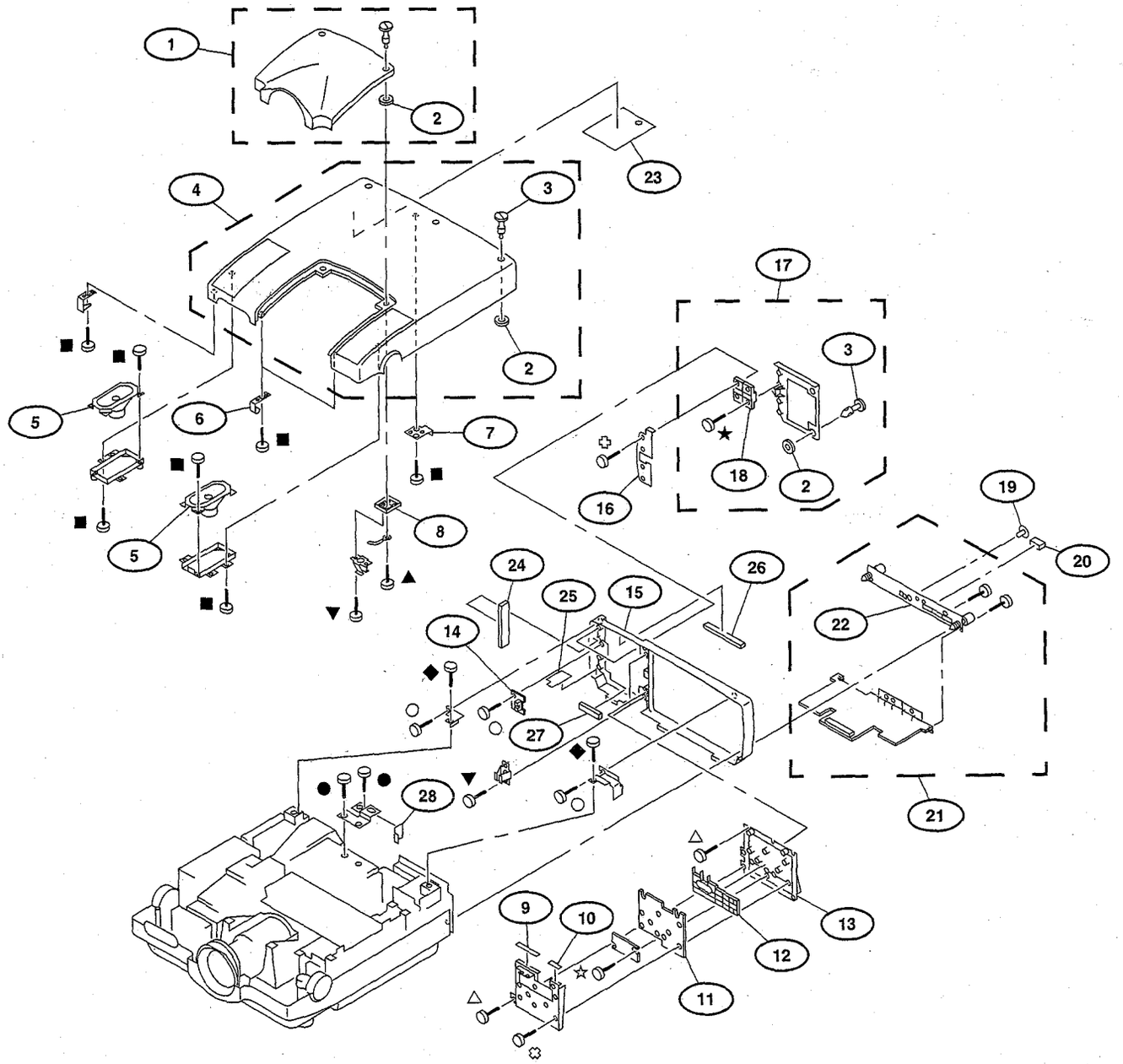
3-4-8. Change of Component Level (VPL-FX200U ONLY)

1. Select Device adjust then BA-MATRIX with menu, and set the 10 YUV LEV to 1 from 0.
2. Press ENTER key and select SAVE TO MEMORY on the menu. Press ENTER key again to save the data.

Section 6
Exploded Views

6-1. Hood, Rear Panel Block (VPL-FX200U/FX200E/FX200M) (PAGE 6-2)

●: 7-682-148-01 +P3x8
▲: 7-685-647-79 +BVTP3x10
▼: 7-627-553-17 +P2x2
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
★: 7-685-648-79 +BVTP3x12
○: 7-682-546-04 +P3x5
△: 7-682-903-21 +PWH3x8
✣: 7-682-903-41 +PWH3x12
☼: 7-685-651-79 +BVTP3x20
☆: 7-685-133-01 +P2.6x6

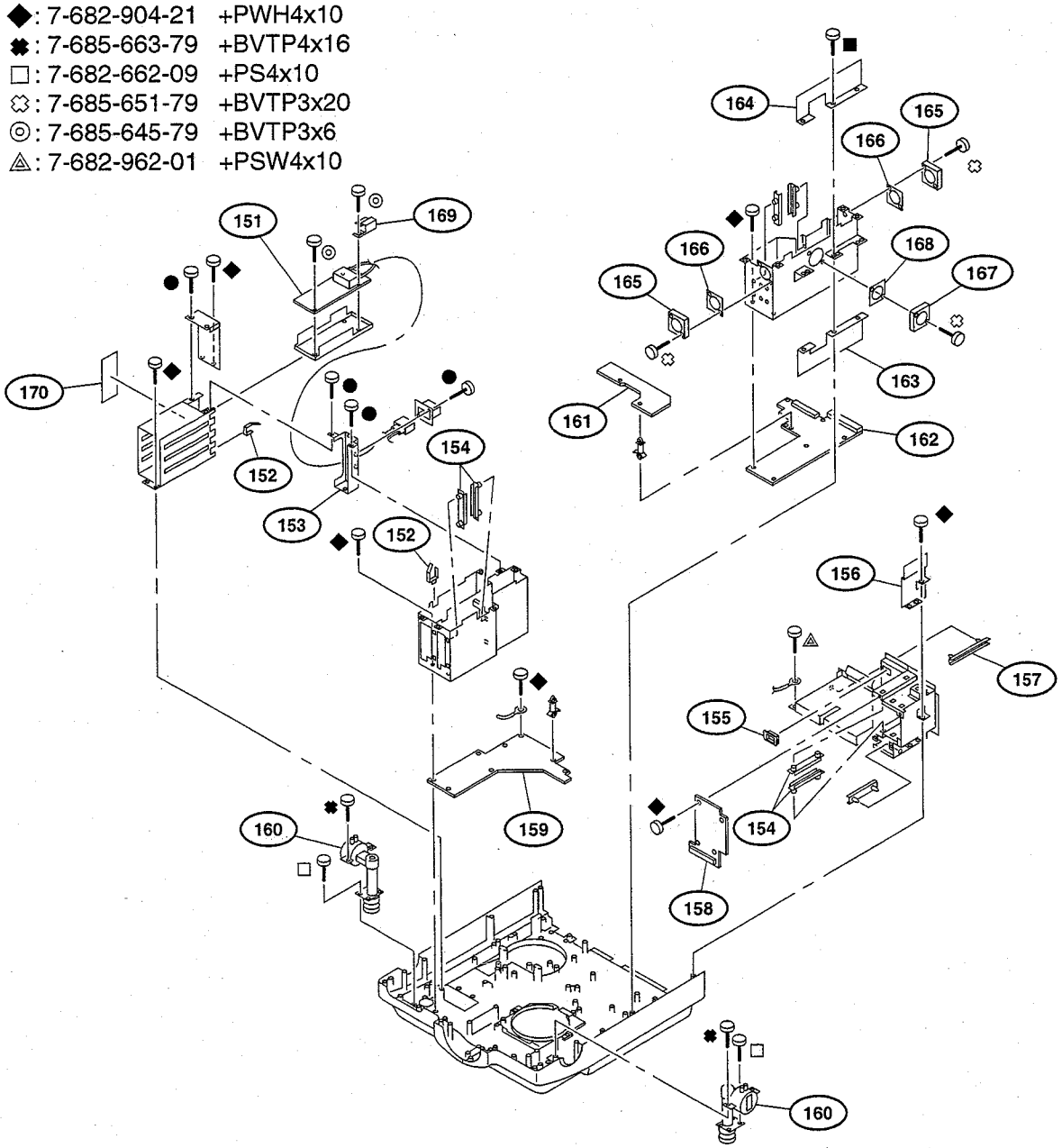


VPL-FX200U/FX200E/FX200M				VPL-X2000U/X2000E/X2000M			
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
4	*X-4036-941-A	HOOD ASSY	2, 3	4	*X-4036-263-1	HOOD ASSY	2, 3
21	*A-1306-584-A	M COMPL		21	*A-1306-561-A	M COMPL	

Section 6
Exploded Views

6-4. Chassis Block 3 (VPL-FX200U/FX200E/FX200M) (PAGE 6-6)

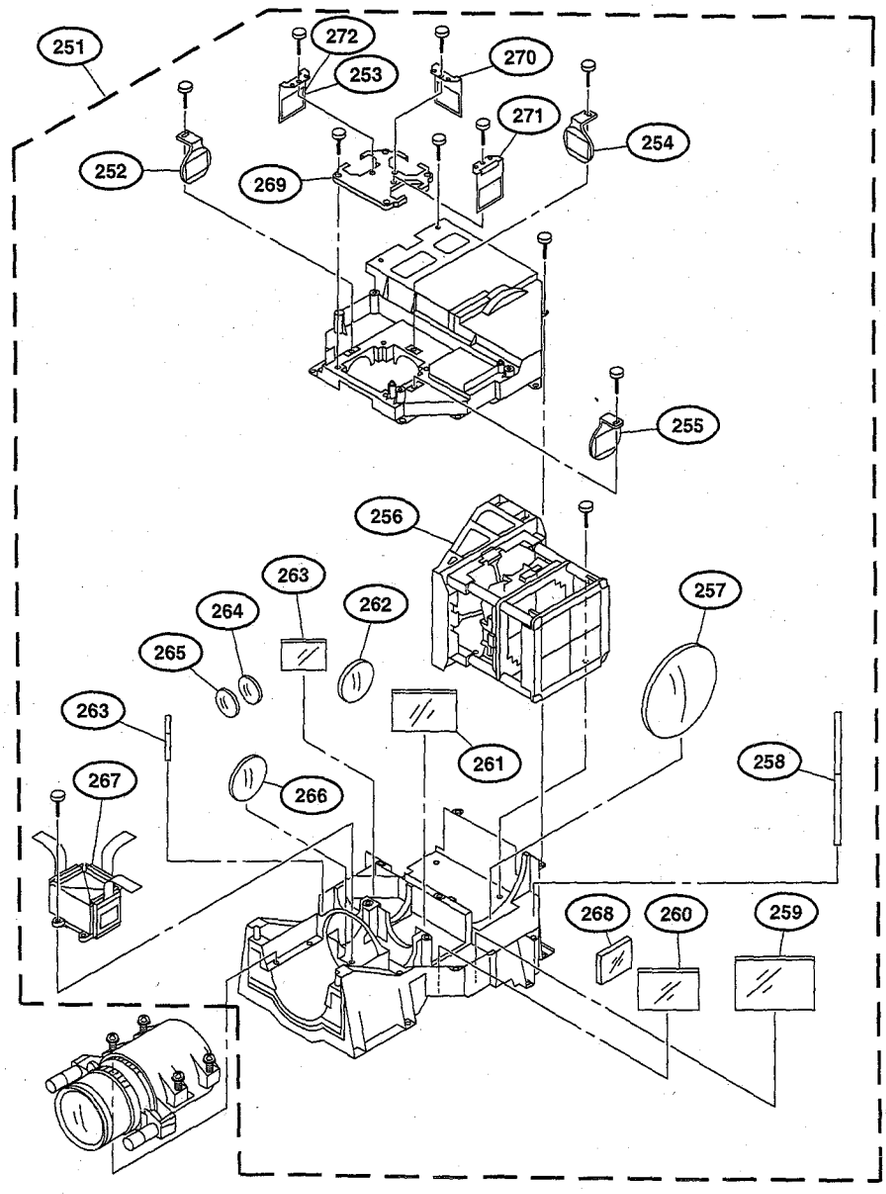
●: 7-682-148-01 +P3x8
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
✱: 7-685-663-79 +BVTP4x16
□: 7-682-662-09 +PS4x10
⛭: 7-685-651-79 +BVTP3x20
◎: 7-685-645-79 +BVTP3x6
⚠: 7-682-962-01 +PSW4x10



VPL-FX200U/FX200E/FX200M				VPL-X2000U/X2000E/X2000M			
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	⚠ 1-468-439-11	POWER BLOCK		151	⚠ 1-468-286-11	POWER BLOCK	

Section 6
Exploded Views

6-6. Optical Block (VPL-FX200U/FX200E/FX200M) (PAGE 6-8)



REF NO.	PART NO.	DESCRIPTION	REMARK
251	1-758-371-11	OPTICAL UNIT	252-272
252	9-884-265-01	POLARIZER, R	
253	9-882-839-01	POLARIZER, R-STANDARD-OUT	
254	9-884-262-01	POLARIZER, G/CONDENSER LENS	
255	9-884-263-01	POLARIZER, B/CONDENSER LENS	
256	* 9-884-260-01	FLYEYE/PS CONVERTER BLOCK	
257	* 9-881-922-01	MAIN CONDENSER LENS	
258	* 9-881-931-01	MIRROR A	
259	* 9-881-934-01	GR REFLECTION DICHROIC MIRROR	
260	* 9-881-932-01	MIRROR B	
261	9-881-935-01	G REFLECTION DICHROIC MIRROR	
262	* 9-881-926-01	LENS A, RELAY	
263	* 9-881-933-01	MIRROR C	
264	* 9-884-264-01	LENS B, RELAY	
265	* 9-881-928-01	LENS C, RELAY	
266	* 9-881-929-01	RED CONDENSER LENS	
267	A-1501-619-A	PRISM BLOCK ASSY	
268	* 9-884-266-01	UV PROOF GLASS	
269	* 9-882-843-01	PRISM BLOCK LID	
270	9-882-841-01	POLARIZER, G-OUT	
271	9-882-842-01	POLARIZER, B-OUT	
272	9-882-840-01	POLARIZER, R-TELEZOOM-OUT	

Section 7
Electrical Parts List
6-6. Optical Block (VPL-FX200U/FX200E/FX200M) (PAGE 6-8)

Page	Change Items \ Model Name	VPL-FX200U/FX200E/FX200M	VPL-X2000U/X2000E/X2000M
7-36	M COMPL **********	A-1306-584-A	A-1306-561-A
7-50	MISCELLANEOUS ********** POWER BLOCK	⚠1-468-439-11	⚠1-468-286-11
7-51	ACCESSORY ********** OPEARTING INSTRUCTIONS (ENGLISH/FRENCH/SPANISH)	3-867-467-11 (FX200U/FX200E/FX200M)	3-865-344-11 (X2000U/X2000E/X2000M)
	OPEARTING INSTRUCTIONS (GERMAN/ITALIAN)	3-867-467-21 (FX200E)	3-865-344-21 (X2000E)
	OPEARTING INSTRUCTIONS (CHINESE)	3-867-467-31 (FX200M)	3-865-344-31 (X2000M)
	MANUAL, INSTALLATION (ENGLISH/FRENCH/SPANISH)	3-867-468-11 (FX200U/FX200E/FX200M)	3-865-345-11 (X2000U/X2000E/X2000M)
	MANUAL, INSTALLATION (GERMAN/ITALIAN)	3-867-468-21 (FX200E)	3-865-345-21 (X2000E)
	MANUAL, INSTALLATION (CHINESE)	3-867-468-31 (FX200M)	3-865-345-31 (X2000M)

English
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Sony Corporation
Broadcasting & Professional Systems Company
9-929-657-01

SERVICE MANUAL

MODEL	DEST.
VPL-X2000U	US/CND
VPL-X2000E	AEP
VPL-X2000M	E

MODEL	DEST.
IFB-X2000E	AEP
PSS-2000	WORLD
SU-PJ2000	WORLD

LCD DATA PROJECTOR

SONY

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injuly, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ! SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

1. OPERATING INSTRUCTIONS

2. SERVICE INFORMATIONS

2-1. Circuit Boards Location 2-1
2-2. Precautions On Electrical Measurements 2-2
2-3. Cover Removal 2-3
2-4. M,QA and QB Boards Removal 2-4
2-5. Rear Panel Assy Removal 2-5
2-6. UA and H Board Removal 2-6
2-7. C Board Removal 2-7
2-8. BA,BB and BC Boards Removal 2-7
2-9. GAA,GAB and GB Boards Removal 2-8
2-10. Power Block Removal 2-9
2-11. Optical Unit and UB Board Removal 2-10
2-12. GF Board Removal 2-11
2-13. GM Board Removal 2-12
2-14. BM Board Removal 2-13
2-15. XA Board Removal 2-14
2-16. Prism Block and R/G/B CH Condenser Lens Removal 2-15

3. SET-UP ADJUSTMENTS

3-1. Attaching The Lens 3-1
3-2. Turning On The Power 3-1
3-3. C Board Adjustments 3-1
  3-3-1. SCEN Adjustments 3-1
  3-3-2. SID OFST Adjustments 3-1
  3-3-3. SID LVL Adjustments 3-1
  3-3-4. PRG LVL Adjustments 3-1
  3-3-5. R VCOM Adjustments 3-1
  3-3-6. G VCOM Adjustments 3-1
  3-3-7. B VCOM Adjustments 3-1
3-4. Signal Level Adjustments 3-2
  3-4-1. RGB Level Checks 3-2
  3-4-2. Component Level Adjustments 3-2
  3-4-3. VIDEO NTSC Level Adjustments 3-2
  3-4-4. VIDEO PAL Level Adjustments 3-2
  3-4-5. Y/PB/PR Level Adjustments 3-2
  3-4-6. 15KRGB Level Adjustments 3-3
  3-4-7. W/B HIGH Adjustments 3-3

3-5. Adjustments In Replacement Of Prism 3-4
3-5-1. Set The Factory Mode 3-4
3-5-2. VCOM Adjustment 3-4
3-5-3. Adjustment Of Deflection Plate 3-4
3-5-4. Adjustment Of 3Dγ (Outline) 3-4
3-5-5. Adjustments Of 3Dγ (Adjusting Method) 3-4
3-5-6. W/B LOW Adjustments 3-5
3-6. M Board Adjustment 3-5
3-6-1. Current Detection 0 Set Adjustment 3-5

4. TROUBLE SHOOTING

4-1. Indicator Section Trouble Shooting 4-1
4-2. Power supply Section Trouble Shooting 4-3

5. SEMICONDUCTORS

6. EXPLODED VIEWS

6-1. Hood, Rear Panel Block 6-1
6-2. Chassis Block 1 6-4
6-3. Chassis Block 2 6-5
6-4. Chassis Block 3 6-6
6-5. Base Block 6-7
6-6. Optical Block 6-8

7. ELECTRICAL PARTS LIST

8. BLOCK DIAGRAMS

QA Board Block Diagram 8-1
QB Board Block Diagram 8-3
BA Board Block Diagram 8-4
BB Board Block Diagram 8-11
BC Board Block Diagram 8-15
UA Board Block Diagram 8-15
UB Board Block Diagram 8-15
M Board Block Diagram 8-16
N Board Block Diagram 8-16
V Board Block Diagram 8-17
C Board Block Diagram 8-24
UC Board Block Diagram 8-25
H Board Block Diagram 8-26
GB Board Block Diagram 8-27
GAA(GAB) Board Block Diagram 8-28
GC Board Block Diagram 8-28
GM Board Block Diagram 8-28

9. DIAGRAMS

9-1. Frame Schematic Dpagram 9-1
9-2. Schematic Diagrams/Printed Wiring Boards 9-3
QA Board 9-4
QB(IFB-2000) Board 9-8
QB(IFB-2000E) Board 9-9
BA Board 9-10
N Board 9-27
BB Board 9-28
BC Board 9-45
M Board 9-48
C Board 9-60
UC Board 9-60
H Board 9-67
GF Board 9-71
GM Board 9-71
GB Board 9-74
GAA Board 9-76
GAB Board 9-78
GC Board 9-80
XA Board 9-82
XB Board 9-84
XC Board 9-84
BM Board 9-86
UA Board 9-86
UB Board 9-86
V Board 9-86

SONY

3-865-344-11(1)

LCD Data Projector

Operating Instructions GB
Mode d'emploi FR
Manual de instrucciones ES

VPL-X2000U
VPL-X2000E
VPL-X2000M

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SECTION 1
OPERATING INSTRUCTIONS

This section is extracted from operation manual.

English

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada
This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	: Earth
Blue	: Neutral
Brown	: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland

Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

Table of Contents

Overview

Precautions ..... **4 (GB)**
Features ..... **6 (GB)**
Location and Function of Controls ..... **8 (GB)**
Front ..... 8 (GB)
Rear ..... 12 (GB)
Remote Commander ..... 14 (GB)

Setting up and projecting

Precautions on Installation ..... **18 (GB)**
Installing the Projector on the Floor ..... **19 (GB)**
Connecting with a Computer or a VCR ..... **20 (GB)**
Projecting ..... **21 (GB)**

Adjustments and settings using the menu

Using the Menu ..... **24 (GB)**
The PICTURE CTRL Menu ..... **25 (GB)**
The INPUT SETTING Menu ..... **27 (GB)**
The SET SETTING Menu ..... **30 (GB)**
The SIGNAL SELECT Menu ..... **32 (GB)**

Installation/connection examples/Index number setting

Installation Examples ..... **33 (GB)**
About the Picture Size ..... 33 (GB)
Floor Installation ..... 34 (GB)
Ceiling Installation ..... 38 (GB)
Connection Examples ..... **42 (GB)**
Connecting 15k RGB/Component Equipment ..... 42 (GB)
Connecting the Switcher ..... 43 (GB)
Confirming the System Construction ..... 44 (GB)
Setting the Index Numbers ..... **45 (GB)**

Maintenance

Maintenance ..... **48 (GB)**
Replacing the Lamp ..... 48 (GB)
Cleaning the Air Filter ..... 49 (GB)
Troubleshooting ..... **50 (GB)**

Others

Specifications ..... **52 (GB)**
Index ..... **59 (GB)**

GB English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 7/8 inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for 30 seconds. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Features

High brightness, high picture quality

• High brightness
Adopting four 120 W UHP lamps and newly developed optical system povides high brightness (light output 2400 of ANSI lumen) and excellent uniformity on the picture.

• High resolution
Thanks to use of three 1.8-inch XGA[1] panels with approximately 790,000 pixels, the projector can project the sharp picture with the resolution of 1024 × 768 pixels.

• DRC (Digital Reality Creation)
The DRC technology allows you to obtain a finer, more detailed picture with four-times higher density than the conventional video picture.

Accepts various input signals

This projector has a built-in high performance scan converter which converts the input signals to display the 15 k RGB, HDTV, VGA[1], SVGA[1], XGA[1], SXGA[1] and UXGA[1] (fV = 60 Hz) signals as well as the video signals of the composite, S video and component.

System expandability and versatility

The projector has RS-232C/422A/PJ COM interface connectors for communication.
By combining the interface boards and signal interface switcher (not supplied), VPL-X2000U/X2000E/X2000M projection systems can be greatly expanded. This projector also has the group and device index functions for using multiple projectors in one system.

Easy and flexible setup

• Sony's original APA (Auto Pixel Alignment) function
You can obtain the clearest picture automatically by simply pressing the APA key when the signal is input from a computer.

• Easy setup with external equipment
This projector has 39 preset data for input signals in the memory. You can get a picture properly on the screen by connecting equipment and pressing the APA key.

1) VGA, SVGA, XGA, SXGA and UXGA are the registered trademarks of the International Business Machines Corporation, U.S.A.

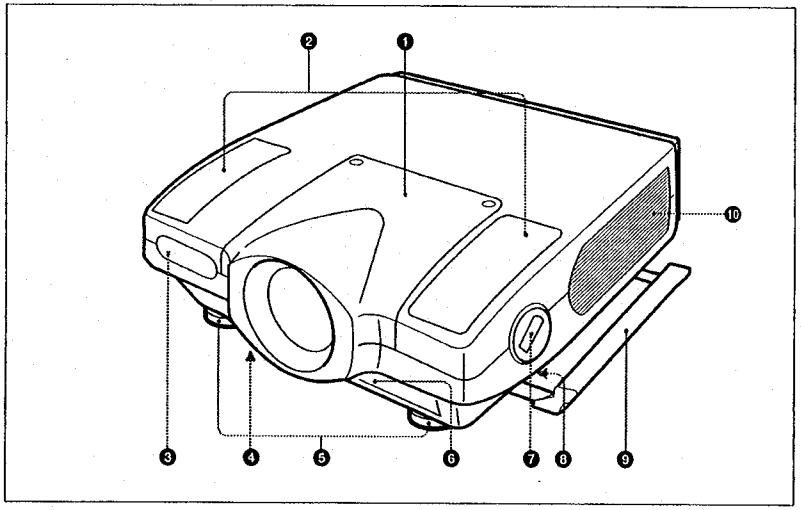
• Flexible setup
The lens shift function allows you to install the projector in a wide range of locations, without worrying about keystone distortion (the picture going out of square). The power focus and power zoom functions also let you change the size of the projection screen without having to move the projector.

• Stack installation
Thanks to the lens shift function, up to three projectors can be stacked, which improves the brightness of the image.

• Fail safe function
The projector uses four lamps for light source. Even if one of them has burnt out, you can still use the projector. If two lamps have burnt out, the projector will automatically enter into standby mode.

Location and Function of Controls

Front



1 **Lens mount part**
When attaching the optional lens, consult with the Sony service personnel.

2 **Speaker**

3 **Front remote control detector**

4 **Bottom ventilation holes (intake)**
Do not block the holes.

5 **Adjusters**
Use the adjusters to keep the projector level if it is installed on an uneven surface.

6 **Front ventilation holes (intake)**
Do not block the holes.

7 **Adjuster button and lever**
Press the button to raise the lever for adjusting the height of the adjuster.

8 **Handle lever (left and right sides)**
Use the lever for putting away the carrying handle.

9 **Carrying handle (left and right sides)**
Pull out the handle for carrying the projector.

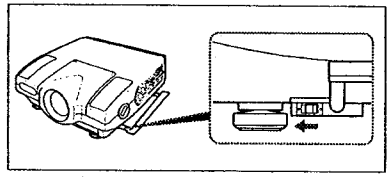
!... **Left and right side ventilation holes (exhaust)**
Do not place anything within the 30 cm (11 7/8 inches) range from these holes or block them.

Notes

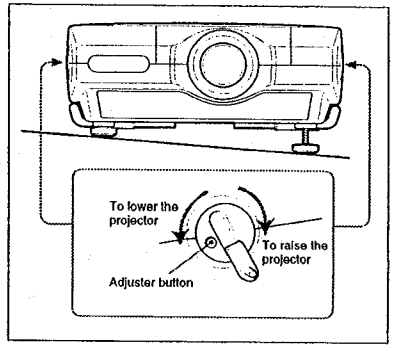
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

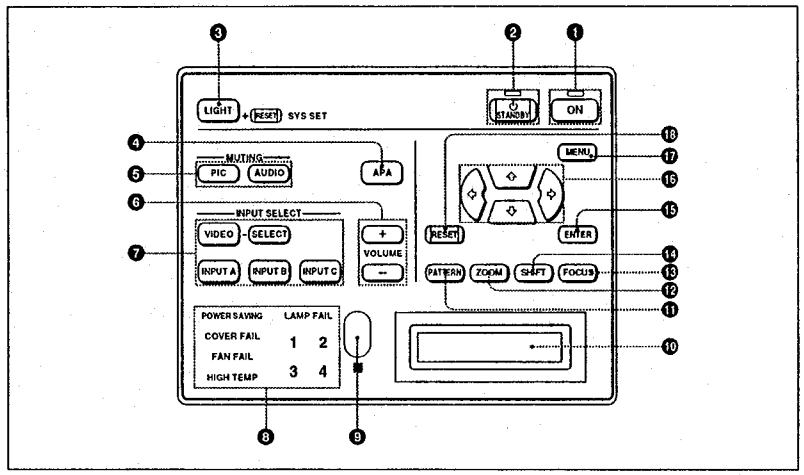


1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel



1 ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for 30 seconds, during which you will not be able to turn the power back on with the ON key.

2 STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

3 LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

4 APA (Auto Pixel Alignment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

5 MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

6 VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

❼ INPUT SELECT keys
Select the input signal.
VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required to select VIDEO.

❽ Indicators
POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.
FAN FAIL: Lights when the fan is broken.
HIGH TEMP: Lights when temperature inside the projector becomes unusually high.
LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.
↑: Enlarges the picture size.
↓: Reduces the picture size.

Note
If the VPLL-2075, VPLL-2014 or VPLL-2009 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.
↑: Focuses on a forward picture.
↓: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.
↑: Moves the picture upward.
↓: Moves the picture downward.

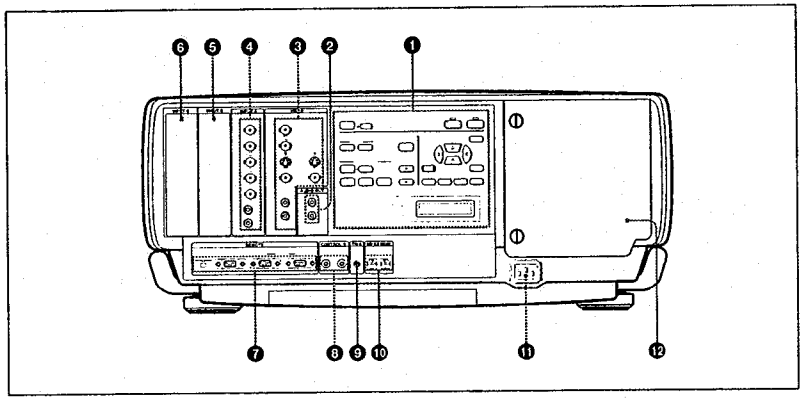
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (↑/↓/←/→)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



1 Control panel
For details, see pages 10 (GB) and 11 (GB).

2 AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

3 VIDEO connectors
Connect to external video equipment, such as a VCR.

Y IN/C IN (BNC type): Connect to the Y and C video outputs of the video equipment.

S VIDEO IN (mini DIN 4-pin): Connects to the Y/C video output of the video equipment.

S VIDEO OUT (mini DIN 4-pin): Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.

VIDEO IN (BNC type): Connects to the composite video output connector of the video equipment.

VIDEO OUT (BNC type): Used as loop-through output of the VIDEO IN connector.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

4 INPUT A connectors

RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type): Connect to the video outputs of equipment such as a computer or a video camera.
According to the connected equipment, the RGB, component (R-Y, Y, B-Y) or HDTV (P_R, Y, P_B) signal is selected.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ Signal interface board attachment part (INPUT C)
Optional signal interface board can be attached according to your requirements.

Note
You cannot select the output mode when attaching the IFB-12A interface board.

❼ REMOTE connectors
Used to expand system capability.

RS-232C/RS-422A select switch: Selects according to the interface connected to the RS-232C/RS-422A connector.

RS-232C/RS-422A connector (D-sub 9-pin, female): Connect to a computer to operate the projector from the computer.

PJ COM IN/OUT connectors (D-sub 9-pin, female): The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.

For details on connections, see the PJ COM protocol manual for Sony projectors.

❽ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.

CONTROL S IN/PLUG IN POWER (DC 5 V output) jack: Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.

CONTROL S OUT jack: Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❾ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) Approximately 12 V DC signal is output when the projector power is on. The signal is 0 volt level output when the projector power is off.

❿ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between "01" and "99". It is set to "01" at the factory. You can also set the group index number in the menu for system setup.

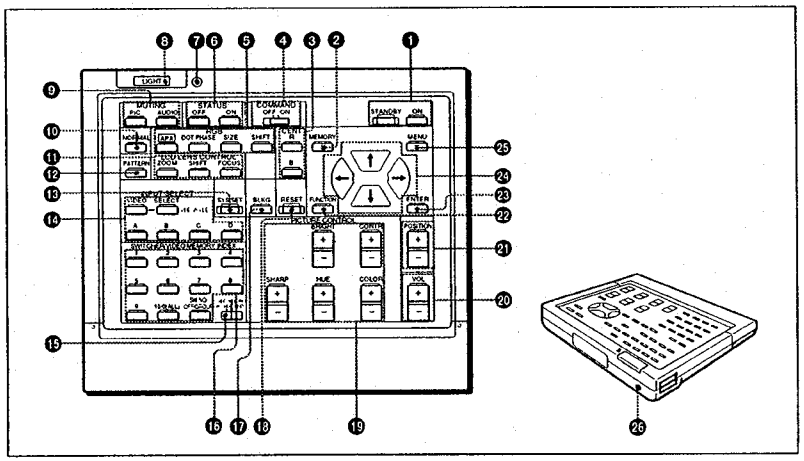
Note
Do not set the device index number to "00". If you do, the projector will be operated only with the keys on the control panel.

⓫ AC IN socket
Connect the supplied AC Power cord.

⓬ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 10 (GB) and 11 (GB).



❶ ON/STANDBY keys

❷ MEMORY key
The key does not function with this projector.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF key
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA: The key functions the same as the APA key on the control panel.
DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

❼ Transmission indicator
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ LIGHT button
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ MUTING keys

❿ NORMAL key
The key does not function with this projector.

⓫ LCD LENS CONTROL keys
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⓬ PATTERN key

⓭ SYS SET (system set) key
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ INPUT SELECT keys
The D key does not function with this projector.

⓯ SWITCHER/VIDEO MEMORY/INDEX select switch
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.
SWITCHER: selects the input from the PC-3000 switcher.
VIDEO MEMORY: The position does not function with this projector.
INDEX: selects a projector by its index number when multiple projectors are used.

⓰ SWITCHER/VIDEO MEMORY/INDEX keys

When the **SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows:
SW NO → 2 → 4.

When the **SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ BLKG (blanking) adjustment key
Enters the blanking adjustment mode.
Next, press ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ RESET key

⓳ PICTURE CONTROL +/– keys
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ VOL (volume) +/– keys

㉑ POSITION +/– keys
These keys do not function with this projector.

(Continued)

㉒ FUNCTION key
The key does not function with this projector.

㉓ ENTER key

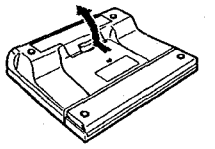
㉔ Arrow keys

㉕ MENU key

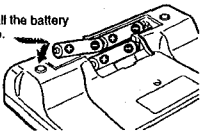
㉖ CONTROL S OUT jack
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.



3 Replace the lid.

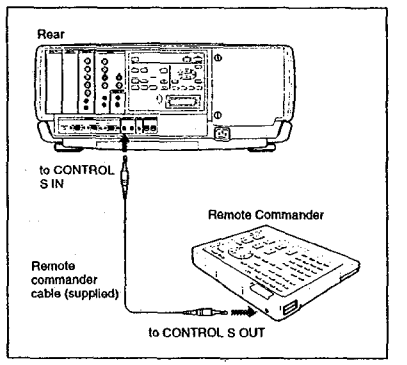
Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector



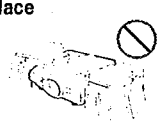
Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

Precautions on Installation

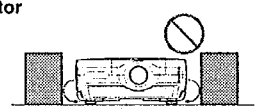
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place



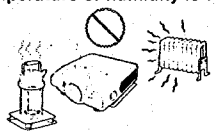
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

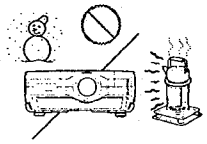


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

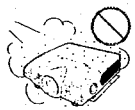


Avoid installing the projector in a location where temperature may rise or fall rapidly

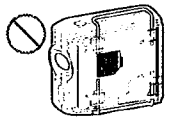


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

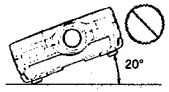
Avoid installing the projector in a location subject to excessive dust



Do not use the projector while laying it on its side

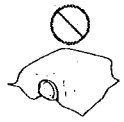


Do not tilt the projector when in use



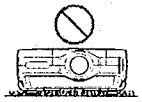
Avoid tilting the projector more than 20 degrees or installing it other than on the floor and ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.

Do not cover the ventilation holes (exhaust)



Do not cover the front ventilation holes; otherwise, internal heat may build up.

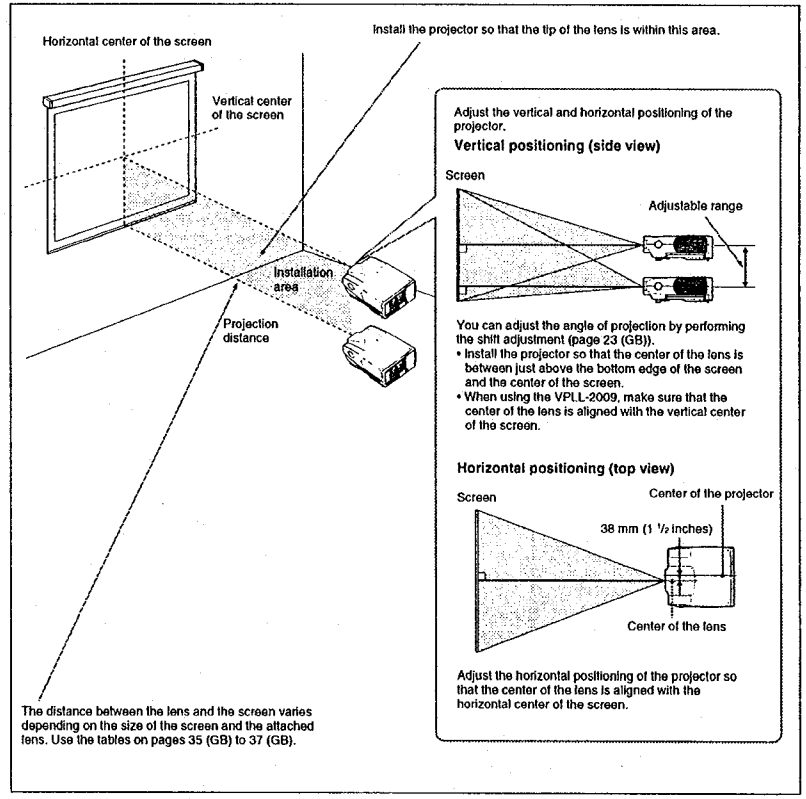
Do not install the projector on a deep-pile carpet



If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Installing the Projector on the Floor

This section describes the installation arrangements for installing the projector on the floor. *For details on installation examples, see pages 34 (GB) to 37 (GB).*
For ceiling installation, consult with qualified Sony personnel *(see page 38 (GB)).*



Connecting with a Computer or a VCR

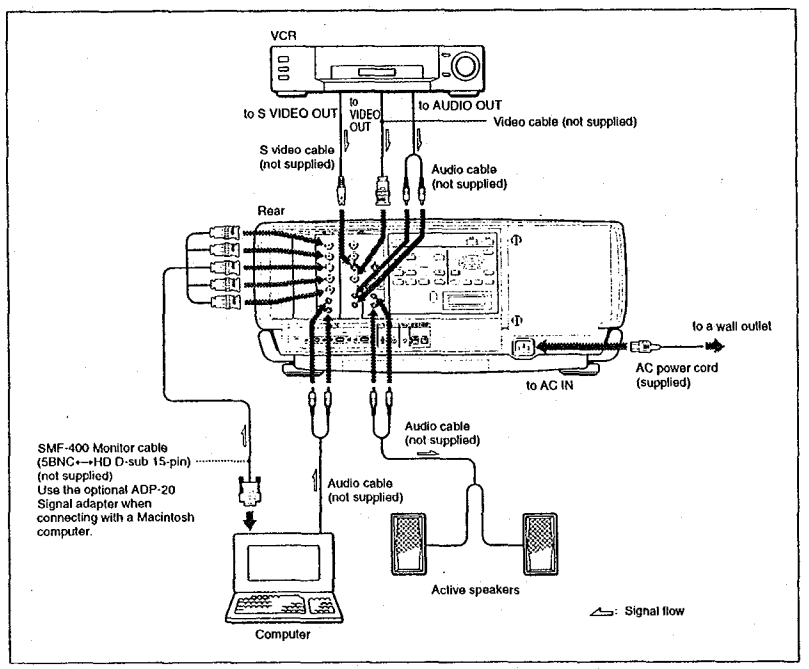
This section describes how to connect the projector with a computer, VCR, and external active speakers. *For details on how to connect other equipment, see pages 42 (GB) to 44 (GB).*
Also refer to the instruction manuals of the equipment to be connected.

When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out by the plug, not the cable itself.

Note on the VPL-X2000E model

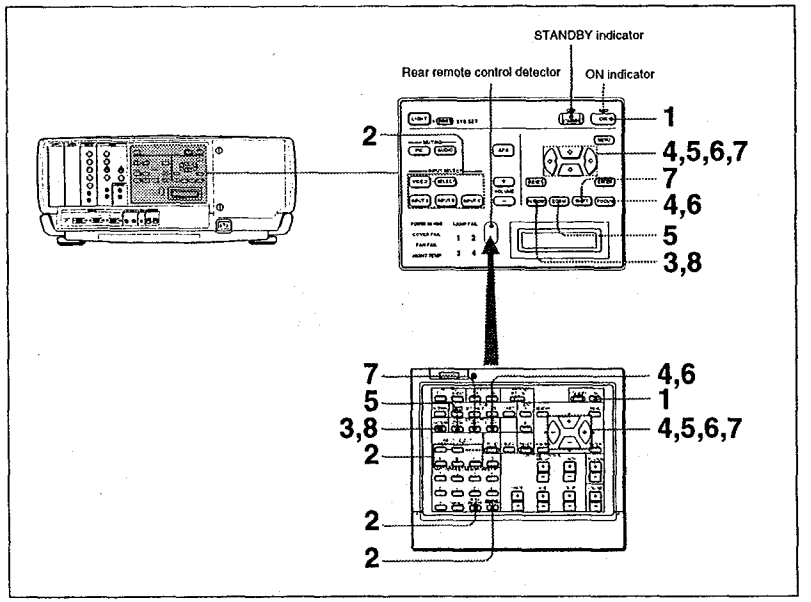
The optional IFB-X2000E interface board is required for using the VIDEO connectors.



Note

Set INPUT-A in the SIGNAL SELECT menu to RGB.
For details, see page 32 (GB).

Projecting



1 Press the ON key on the Remote Commander or the control panel.

The ON indicator lights in green.

2 Turn on the power of equipment connected to the projector. Press the INPUT SELECT keys on the Remote Commander or the control panel to select the input source.

VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the VIDEO or S VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input signal is switched between VIDEO and S VIDEO.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

(Continued)

When you input the signal from equipment connected to the PC-3000 signal interface switcher (not supplied), set the SWITCHER/VIDEO MEMORY/INDEX select switch on the Remote Commander to the SWITCHER position and press the number keys to select the input. When multiple switchers are connected, press the SW NO/OFF/GROUP key, then press the number keys to select the input.

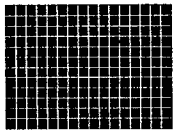
Note

Press the SYS SET key when you make the system connections using the PC-3000 switcher.

Note on the VPL-X2000E model

The optional IFB-X2000E is required for selecting VIDEO.

3 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



4 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

"FOCUS" appears on the screen during adjustment.

5 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

"ZOOM" appears on the screen during adjustment.

Note

If the optional VPLL-2075, VPLL-2014 or VPLL-2009 lens is installed, you cannot adjust the zoom.

6 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

"FOCUS" appears on the screen during adjustment.

7 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

8 Press the PATTERN key again to clear the HATCH pattern.

To	Press
Adjust the volume	the VOLUME +/– keys.
Cut off the sound	the AUDIO MUTING key (also cuts off the signal output from the AUDIO OUT jacks.) To restore the sound, press the AUDIO MUTING key again or press the VOLUME + key.
Cut off the picture	the PIC MUTING key. To restore the picture, press the PIC MUTING key again.

Note

Do not look into the lens when the projector lamp is on.

To turn off the power

1 Press the STANDBY key on the Remote Commander or the control panel.

The ON indicator flashes in green and the cooling fan keeps running for about six minutes to reduce the internal heat. The ON indicator flashes quickly for 30 seconds. During this time, you will not be able to turn the power back on. After about 30 seconds, you can turn on the power with the ON key.

When the fan stops running, the STANDBY indicator lights in red.

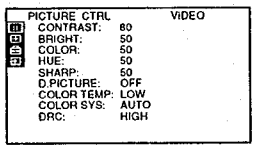
Note

To extend the lamp life, do not turn off the power for at least 10 minutes after turning on the power.

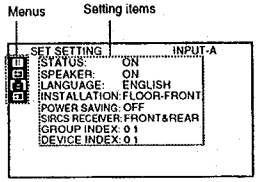
Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.
To change the language used in the menu, see page 30 (GB).

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



3 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

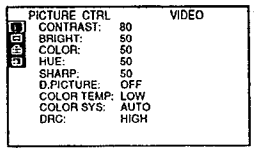
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



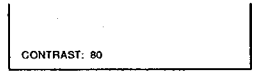
Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

CONTRAST

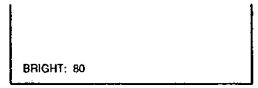
Adjusts the picture contrast.



The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

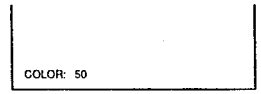
Adjusts the picture brightness.



The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.



The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts skin tones.

At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

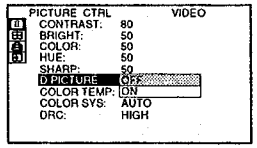
SHARP (Sharpness)

Adjusts the picture sharpness.

The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.

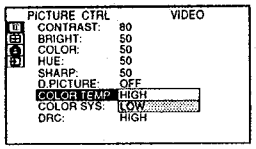


ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

The PICTURE CTRL Menu

COLOR TEMP (temperature)

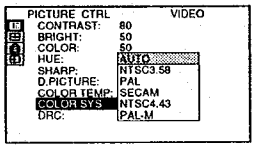
Adjusts the color temperature.



HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (system)

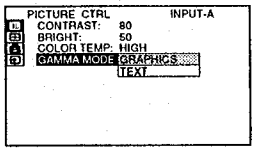
Selects the color system of the input signal.



Normally, set to AUTO.
If the picture is distorted or colorless, select the color system (NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M) according to the input signal.

GAMMA MODE

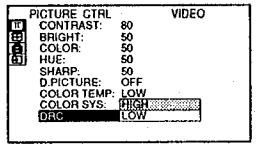
Select either position to obtain an optimum picture.



GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images with lots of text.

DRC (Digital Reality Creation)

Selects the level of DRC effects.



HIGH: Increases the DRC effects.
LOW: Decreases the DRC effects.

Input signals and adjustable/setting items

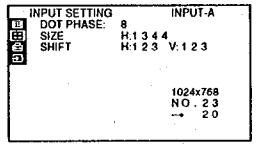
Item	Input signal					
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (preset) (HDTV-$Y/P_B/P_R$)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	N	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	N	N	N	Y	N
SHARP	Y	N	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y
DRC	Y	Y	Y	N	N	N

Y: Adjustable/can be set
N: Not adjustable/cannot be set

1) NTSC4.43 is the color system used when playing back a video recorded in NTSC color system on a NTSC4.43 system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



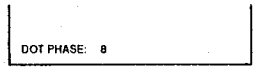
Operation

1. Select an item
Use the V or v key to select the item, then press the b or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the V or b key.
  To decrease the number, press the v or B key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the V or v key to change the setting, then press the B or the ENTER key.
  The original screen is restored.

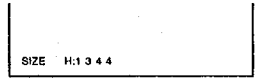
DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.



SIZE

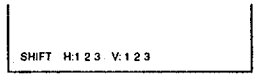
Adjusts the horizontal size of the picture.



As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the B or b key to adjust the horizontal size.

SHIFT

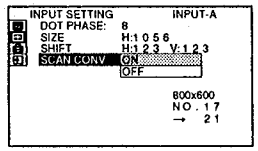
Adjusts the position of the picture.



H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the B or b key to adjust the horizontal position and the V or v key for the vertical position.

SCAN CONV (converter)

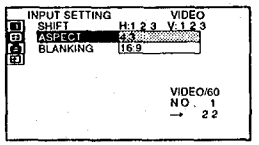
Converts the signal to display the picture according to the screen size.



ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

ASPECT

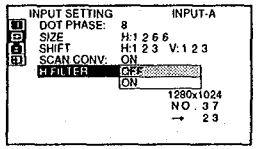
Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.



4:3: When the picture with ratio 4:3 is input
16:9: When the picture with ratio 16:9 (squeezed) is input.

H FILTER

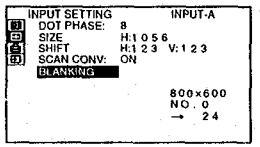
Corrects the vertical bands that appear on the picture.



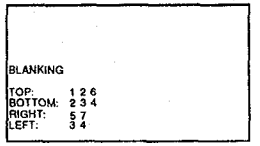
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1024 × 768 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.



Select BLANKING, then press the ENTER key to display the blanking adjustment screen.



Use the V or v key to select the part to be adjusted, and the B or b key to adjust.

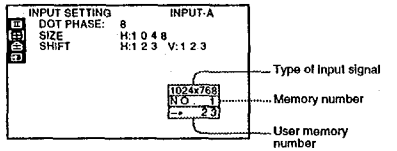
Input signals and adjustable/setting items

Item	Input signal				
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV)	Y
SIZE	N	N	N	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SVGA)	Y
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (Higher resolution than XGA)	Y (Higher resolution than XGA)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV-GBR, HDTV-Y/PB/PR only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.



About the memory function

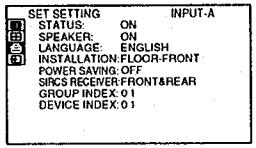
The adjustment data for 39 types of input signals are preset at the factory (preset memory).
When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.
The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.
When you save more than 200 user memories, the newest one always overwrites the oldest one.
The saved user memory number is displayed in the INPUT SETTING menu as n NO. □□.
When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 39 types of signals.

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1235
6	640 × 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 × 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 × 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	—
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 × 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 × 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 × 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 × 864	VESA 70	64.00	70.02	H-pos V-pos	1308
28		VESA 75	67.50	75.00	H-pos V-pos	1422
29		VESA 85	77.49	85.06	H-pos V-pos	1394
30	1152 × 900	SUN LO	61.80	65.96	H-neg V-neg	1283
31		SUN HI	71.71	76.05	C-neg	1256
32	1280 × 960	VESA 60	60.00	60.00	H-pos V-pos	1440
33		VESA 75	75.00	75.00	H-pos V-pos	1382
34	1280 × 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1272
35		SGI-5	53.32	50.06	S on G	1260
36		SXGA VESA 60	63.97	60.01	H-pos V-pos	1272
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1266
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1296
39	1600 × 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1352

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



Operation

1. Select an item

Use the ↑ or ↓ key to select the item, then press the → key or the ENTER key.

2. Adjust an item

• When changing the adjustment level:

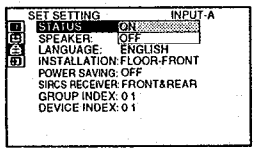
To increase the number, press the ↑ or → key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.

• When changing the setting:

Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
The original screen is restored.

STATUS

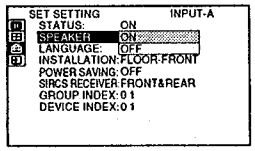
Sets up the on-screen display.



ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus and warning messages.

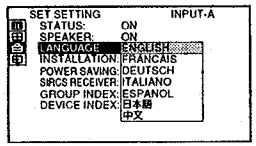
SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.



LANGUAGE

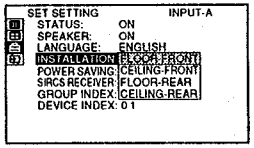
Selects the language used in the menu and on-screen displays.



Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.



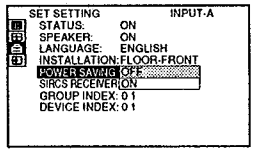
FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

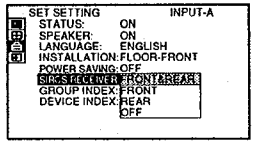
POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.



SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.



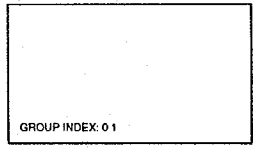
FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

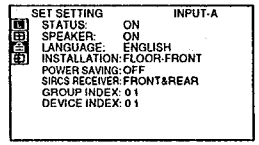
Groups multiple projectors or switchers to operate them simultaneously.



You can set the group index number to the desired number between 01 and 99.

DEVICE INDEX

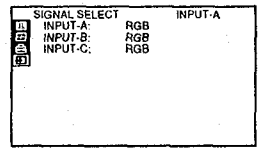
Displays the index number set with the INDEX switches on the rear of the projector. You cannot set the device index number with this menu.



For details for setting the number, see page 45 (GB).

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.

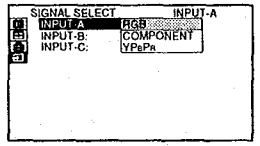


Operation

Use the ↑ or ↓ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors. You can select the RGB, component or HDTV (YP_BP_R) signal.

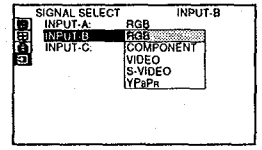


Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section. You can select the RGB, component, HDTV (YP_BP_R), video or S video signal.

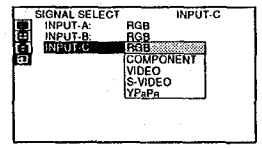


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

INPUT-C

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT C section. You can select the RGB, component, HDTV (YP_BP_R), video or S video signal.

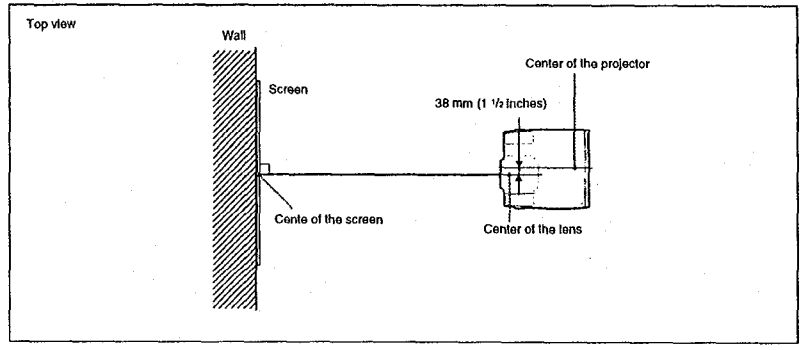


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT C section.

Installation Examples

When you install the projector, be sure to adjust the horizontal positioning of the projector so that the center of the lens is aligned with the horizontal center of the screen.

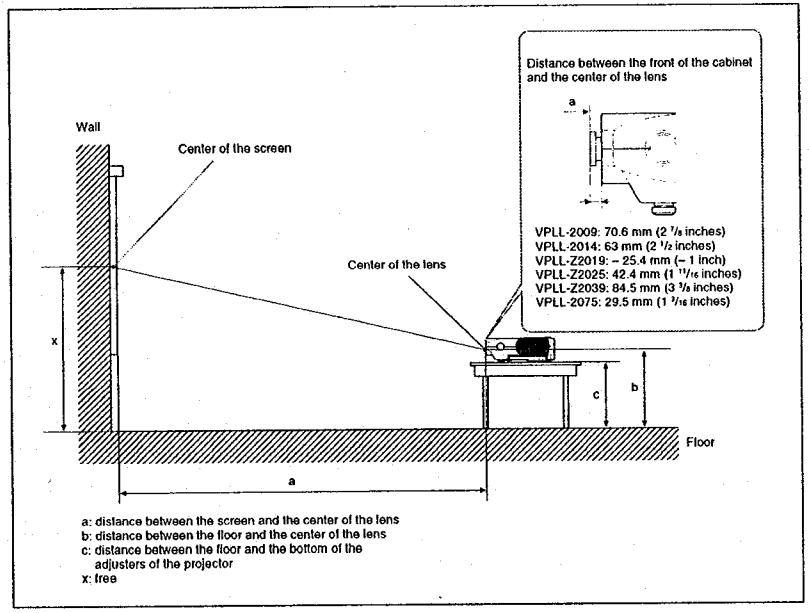


About the Picture Size

The on-screen picture size changes according to the setting of SCAN CONV in the INPUT SETTING menu. Note that the projection distance also changes depending on the picture size.

Installation Examples

Floor Installation



When using the VPLL-2009 fixed short focus lens

Make sure that the center of the lens is aligned with the vertical center of the screen.

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		640 (25 1/4)	1410 (55 5/4)	1800 (70 7/8)	2190 (86 1/4)	2770 (109 1/8)	3350 (132)	3730 (146 7/8)	4700 (185 1/4)	5670 (223 3/4)	6630 (261 1/4)	7600 (299 1/4)	8570 (337 1/2)	9530 (375 1/4)
b	Min.	x–11 (x–7/16)	x–22 (x–7/8)	x–28 (x–1 1/8)	x–33 (x–1 5/16)	x–41 (x–1 11/16)	x–50 (x–2)	x–55 (x–2 1/4)	x–69 (x–2 3/4)	x–83 (x–3 3/8)	x–96 (x–3 7/8)	x–110 (x–4 3/8)	x–124 (x–5)	x–138 (x–5 1/2)
	Center	x												
	Max.	x+11 (x+7/16)	x+22 (x+7/8)	x+28 (x+1 1/8)	x+33 (x+1 5/16)	x+41 (x+1 11/16)	x+50 (x+2)	x+55 (x+2 1/4)	x+69 (x+2 3/4)	x+83 (x+3 3/8)	x+96 (x+3 7/8)	x+110 (x+4 3/8)	x+124 (x+5)	x+138 (x+5 1/2)
c	Min.	x–154 (x–6 1/4)	x–165 (x–6 1/2)	x–170 (x–6 3/4)	x–176 (x–7)	x–184 (x–7 1/4)	x–192 (x–7 5/8)	x–198 (x–7 7/8)	x–211 (x–8 3/8)	x–225 (x–8 7/8)	x–239 (x–9 1/2)	x–253 (x–10)	x–267 (x–10 1/2)	x–280 (x–11 1/4)
	Center	x–142 (x–5 5/8)												
	Max.	x–130 (x–5 1/4)	x–119 (x–4 3/4)	x–114 (x–4 1/2)	x–108 (x–4 3/4)	x–100 (x–4)	x–92 (x–3 5/8)	x–86 (x–3 1/2)	x–73 (x–2 7/8)	x–59 (x–2 3/4)	x–45 (x–1 13/16)	x–31 (x–1 1/4)	x–17 (x–11/16)	x–4 (x–5/32)

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 35.079/1.814) – 134
b (minimum) = x – (SS/1.814 × 0.5)
b (maximum) = x + (SS/1.814 × 0.5)
c (minimum) = x – (SS/1.814 × 0.5 + 142.5)
c (maximum) = x – (SS/1.814 × – 0.5 + 141.5)

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 5/4)	2180 (85 7/4)	2760 (108 3/4)	3330 (131 1/4)	4200 (165 3/4)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/4)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 5/4)	14280 (562 3/4)
b	Min.	x–198 (x–7 7/8)	x–397 (x–15 5/8)	x–496 (x–19 5/8)	x–595 (x–23 1/2)	x–744 (x–29 3/4)	x–893 (x–35 1/4)	x–992 (x–39 1/4)	x–1240 (x–48 7/8)	x–1488 (x–58 5/8)	x–1736 (x–68 3/4)	x–1984 (x–78 1/4)	x–2232 (x–88)	x–2480 (x–97 3/4)
	Max.	x												
c	Min.	x–349 (x–13 7/4)	x–548 (x–21 3/4)	x–647 (x–25 1/2)	x–746 (x–29 1/2)	x–895 (x–35 1/4)	x–1044 (x–41 1/4)	x–1143 (x–45 1/4)	x–1391 (x–54 7/8)	x–1639 (x–64 5/8)	x–1887 (x–74 3/4)	x–2135 (x–84 1/4)	x–2383 (x–93 3/4)	x–2631 (x–103 3/4)
	Max.	x–142 (x–5 5/4)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
b (minimum) = x – (SS/1.814 × 9.0)
c (minimum) = x – (SS/1.814 × 9.0 + 151.0)

Installation Examples

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 3/4)	7850 (309 1/8)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/8)	17790 (700 1/2)	19780 (778 1/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/4)	14840 (584 3/8)	17330 (682 3/8)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	x–287 (x–11 3/4)	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x												
c	Min.	x–442 (x–17 1/2)	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 1/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025

a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 5/8)	7620 (300 1/4)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 5/8)	18030 (709 15/16)	20630 (812 3/8)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/8)	11710 (461 1/8)	14080 (554 1/2)	15660 (616 3/4)	19620 (772 3/4)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/8)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025

a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/4)	14510 (571 3/8)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/8)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 3/8)	23120 (910 3/4)	28940 (1139 3/4)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 3/4)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/4)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/4)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025

a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 5/8)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/4)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a = (SS × 269.100/1.814) + 163

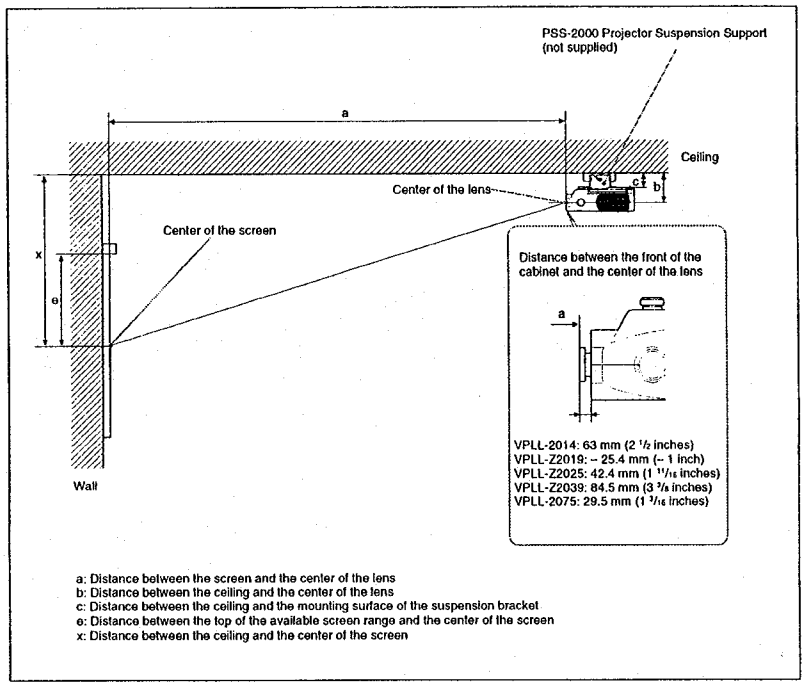
b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

Installation Examples

Ceiling Installation

When installing the projector on the ceiling, use the PSS-2000 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.



a: Distance between the screen and the center of the lens
b: Distance between the ceiling and the center of the lens
c: Distance between the ceiling and the mounting surface of the suspension bracket
e: Distance between the top of the available screen range and the center of the screen
x: Distance between the ceiling and the center of the screen

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 3/4)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/8)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/8)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 5/8)	14280 (562 3/8)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+140 (c+5 1/2)												
e		305 (12 1/4)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+338 (c+13 3/8)	c+536 (c+21 1/8)	c+636 (c+25 1/8)	c+735 (c+29)	c+884 (c+34 7/8)	c+1033 (c+40 3/4)	c+1132 (c+44 5/8)	c+1380 (c+54 3/8)	c+1628 (c+64 1/8)	c+1876 (c+73 7/8)	c+2124 (c+83 3/4)	c+2372 (c+93 1/2)	c+2620 (c+103 1/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 9.0 + 139.6)

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 1/8)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/8)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/8)	14840 (584 7/8)	17330 (682 3/4)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+144 (c+5 3/4)												
e		305 (12 1/4)	610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+430 (c+17)	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025
a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 3/4)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 3/4)	18030 (709 15/16)	20630 (812 3/4)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/4)	14080 (554 1/2)	15660 (616 5/8)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/4)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/4), x (minimum) ≈ e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025
a (maximum) ≈ ((SS × 147.324/1.814) – 175) × 0.975
e = SS × 0.3 × 25.4
x (maximum) ≈ c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/8)	14510 (571 3/8)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/4)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 3/4)	23120 (910 3/4)	28940 (1139 5/8)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: 104.7 (4 1/4), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025
a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 3/4)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 5/8)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/4), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 269.100/1.814) + 163
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

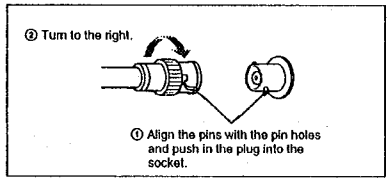
Connection Examples

For details on how to connect a computer, VCR or external active speakers, see page 20 (GB). Also refer to the instruction manual of the equipment to be connected.

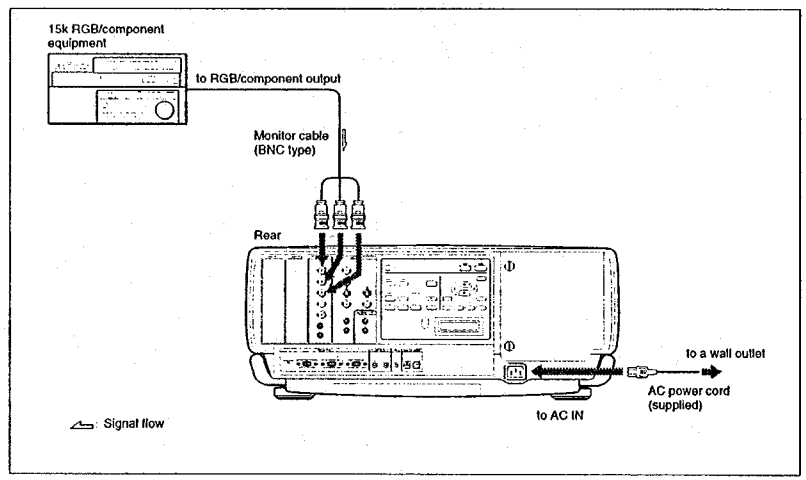
When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Connecting a BNC connector



Connecting 15k RGB/Component Equipment



Note

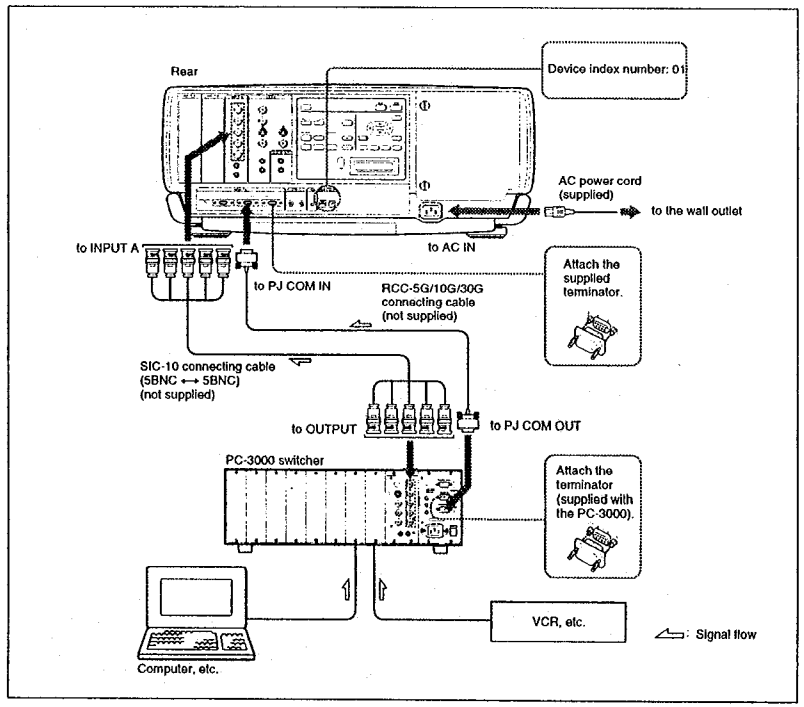
Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 32 (GB).

Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 15 (GB).

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, activate the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
For details, see page 31 (GB).
- After all the connections are complete, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.



Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets.

2 Press the SYS SET key on the Remote Commander.
You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are complete. If you press the key(s), "Master Switcher not exist" appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

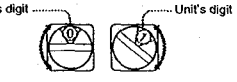
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 31 (GB).

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to "01" at the factory.
If only one projector is connected, set it to "01."



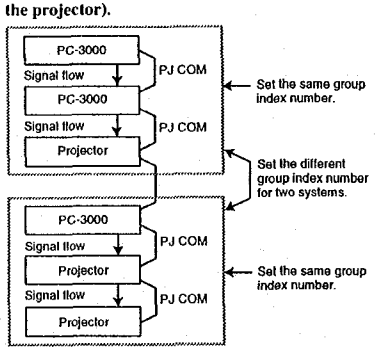
Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to "00." If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

Setting the Index Numbers

Notes on setting of the index number

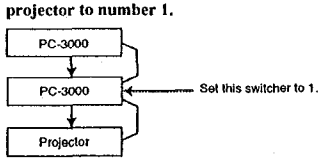
- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**



For setting the group index number, see "GROUP INDEX" on page 31 (GB).

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.

- **Set the switcher that outputs the signal to the projector to number 1.**

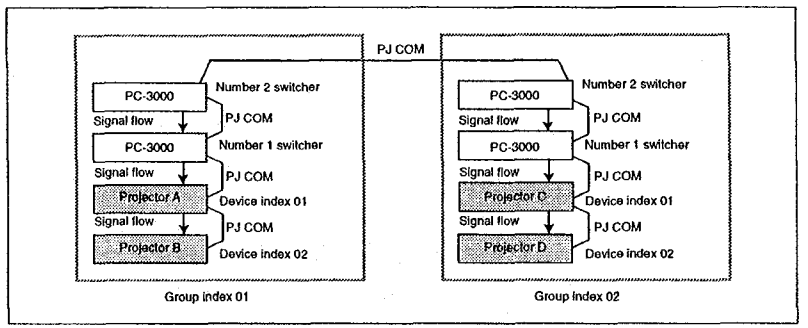


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.



Example:

To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes

- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.

Example:

To select a projector with device index 13 of group index 12
GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Maintenance

Replacing the Lamp

When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q2000 Projector Lamp (not supplied).

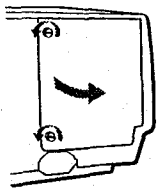
Note

Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

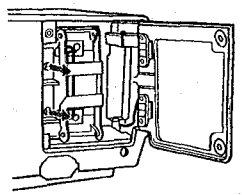
To remove the lamp

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

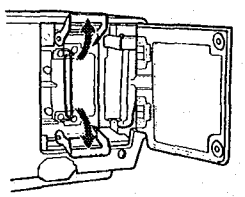
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



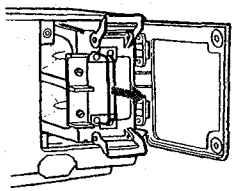
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

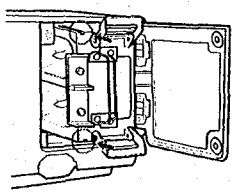


5 Pull out the lamp by holding the handles.

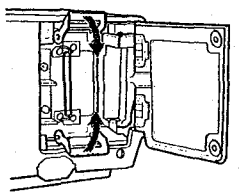


To install a new lamp

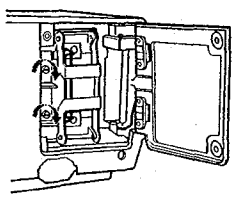
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



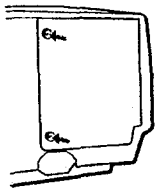
2 Push the lamp completely until it clicks. Fold down the levers to fix the lamp to the projector.



3 Tighten the two screws to secure the lamp.



4 Replace the lamp cover and push to tighten the two screws to fix the cover.



To reset the use time of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

```
TIMER RESET?
LAMP: 1
```

3 Press the ↑ or ↓ key to display ALL.

```
TIMER RESET?
LAMP: ALL
```

4 Press the ENTER key.

```
TIMER RESET??
LAMP: ALL
```

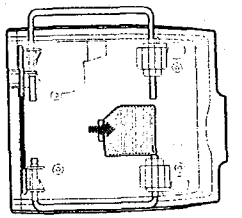
5 Press the ENTER key again to reset the time. The reset mode will be automatically cancelled.

Cleaning the Air Filter

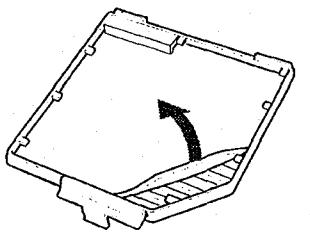
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about 30 seconds before turning on the power *(see page 10 (GB))*.
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 49 (GB))*.
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 20 (GB), 42 (GB) and 43 (GB))*.
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 32 (GB))*.
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 10 (GB))*.
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
When inputting sound through the INPUT A/B/C connector, sound comes through one channel only.	Monaural sound is being input through the INPUT A/B/C connector.	Input stereo sound.
The picture from INPUT A/B/C connector is colored strange.	Setting for INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-A in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-B in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-C in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT C.	Setting for INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 30 (GB))*.
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see pages 25 and 26 (GB))*.
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu to match the color system of the input *signal (see page 26 (GB))*.
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 48 (GB))*.
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 25 (GB))*.
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 22 (GB))*.
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 18 (GB))*.

Symptom	Cause	Remedy
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 17 (GB))*.
	The remote commander cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 31 (GB))*.
	You have selected a wrong index number.	Select the correct index number *(see pages 31 (GB) and 45 (GB))*.
	You have set the index number to "00".	Select the correct index number *(see page 45 (GB))*.
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 31 (GB))*.
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 48 (GB) and 49 (GB))*.
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 48 (GB))*.
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-B correctly.
Please check INPUT-C in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-C in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-C correctly.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel	1.8-inch XGA LCD panel, 2,359,296 pixels (786,432 pixels × 3)
Lens	Option
Light output	ANSI lumen[1] 2,400 lm
Lamp	120 W UHP × 4

Electrical characteristics

Color system	NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M system, switched automatically
Resolution	600 horizontal TV lines (video input) 1024 × 768 dots (RGB input)
Acceptable computer signal	
	fH: 15 to 94 kHz
	fV: 40 to 120 Hz
Speakers	Max. 5 W + 5 W, 90 × 50 mm (3 5/8 × 2 inches), stereo

Input/Output

CONTROL S	IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA OUT: Stereo minijack, 5 Vp-p
REMOTE	RS-232C/422A D-sub 9-pin (female) *(For details, see "Pin assignment" on page 54 (GB).)*
PJ COM	IN: D-sub 9-pin (male) OUT: D-sub 9-pin (female) *(For details, see "Pin assignment" on page 54 (GB).)*
TRIG	Minijack Power on: DC 12 V, output impedance: 4.7 kilohms Power off: 0 V

S VIDEO (priority to Y IN/C IN) (only for VPL-X2000U/X2000M)
- IN: Mini DIN 4-pin type (male)
  - Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
  - C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
  - Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
- OUT: Loop-through mini DIN 4-pin type (male)
  - Loop-through output from the S VIDEO IN connector

Y IN: BNC type
- 1 Vp-p ± 2 dB sync negative, 75 ohms terminated

C IN: BNC type
- Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
- Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated

VIDEO (only for VPL-X2000U/X2000M)
- IN: BNC type
  - Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
- OUT: Loop-through BNC type
  - Loop-through output from the VIDEO IN connector

AUDIO IN (only for VPL-X2000U/X2000M)
- Phono type (stereo)
  - 500 mVrms, impedance more than 47 kilohms

INPUT A
- Analog RGB/component: BNC type
  - R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
  - G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
  - G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
  - B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
  - SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative
  - Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative
  - VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative
- AUDIO IN: Phono type (stereo)
  - 500 m Vrms, impedance more than 47 kilohms
- HDTV (Y/PB/PR): BNC type
  - Y: 1 Vp-p ± 2dB positive, 75 ohms
  - Tri-level sync: ± 0.3 Vp-p
  - Bi-level sync: 0.3 Vp-p
  - PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms
- HDTV (GBR): BNC type
  - G with sync: 1 Vp-p ± 2 dB, 75 ohms
  - Tri-level sync: ± 0.3 Vp-p
  - Bi-level sync: 0.3 Vp-p
  - B/R: 0.7 Vp-p ± 2dB positive, 75 ohms

AUDIO OUT (variable out)
- Phono type, Max. 1 Vrms
  - When input is 500 mVrms: impedance less than 5 kilohms

Safety regulations
- VPL-X2000U: UL1950, c-UL (CSA No. 950), FCC Class A, IC Class A
- VPL-X2000E/X2000M: EN60 950 (TÜV), CE, C-Tick

General

Dimensions	562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass	Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements	
	VPL-X2000U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1]
	VPL-X2000E/X2000M: AC 220 to 240 V, 50/60 Hz
Power consumption	
	Approx. 770 W (Standby mode: 15W for VPL-X2000U/X2000M, 20 W for VPL-X2000E)
Heat dissipation	2628 BTU
Operating temperature	
	0°C to 40°C (32°F to 104°F)
Operating humidity	
	35% to 85% (no condensation)
Storage temperature	
	–20°C to +60°C (–4°F to +140°F)
Storage humidity	10% to 90%
Supplied Accessories	
	Remote Commander RM-PJ1001 (1)
	Size AA (R6) batteries (3)
	Remote commander cable (stereo) (15 m) (1)
	AC power cord (1)
	Terminator for the PJ COM connector (1)
	Lens ring (1)
	Operating Instructions (1)
	Installation Manual for Dealers (1)
	Warranty (only for VPL-X2000U) (1)

Design and specifications are subject to change without notice.

Optional accessories

Projector Lamp LMP-Q2000 (for replacement)
Interface Board
- IFB-12A (Analog RGB/component/HDTV/ composite video/S video input with 5BNC type connectors)
- IFB-20 (Analog RGB input with D-sub 9-pin type connector)
- IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
- IFB-30 (Digital RGB input with D-sub 9-pin type connector)
- IFB-50 (serial digital video input/output with BNC type connector)
- IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
- IFB-X2000E (Composite video input with phono jacks/S video input with mini DIN 4-pin type connector) (only for VPL-X2000E)

Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable
- SIC-10/20A/20C/21/22/23/24/24A/25/26/26A/30/31/M1/M5/M15/M25/M50

9-pin remote cable (for PJ COM)
- RCC-5G/10G/30G

(continued)

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

1) UL listed for 120 V operation.

Specifications

Monitor Cable
- SMF-400 (HD D-sub 15-pin (female) ⟷ 5BNC (female))
- SMF-401 (HD D-sub 15-pin (female) ⟷ HD D-sub 15-pin (female))

Signal Adapter
- ADP-10 (D-sub 9-pin ⟷ HD D-sub 15-pin (for SIC Cable))
- ADP-20 (Macintosh ⟷ VGA)

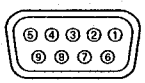
Remote Commander RM-PJ3000S
Remote Control Receiver RM-PJ10
Projection Lens
- Fixed short focus lens VPLL-2009
- Fixed short focus lens VPLL-2014
- 1.3-times zoom standard focus lens VPLL-Z2019
- 1.6-times zoom long focus lens VPLL-Z2025
- 1.5-times zoom long focus lens VPLL-Z2039
- Fixed long focus lens VPLL-2075

Projector Stand SU-PJ2000 (for stacking)
Projector Suspension Support PSS-2000
Screens
- VPS-80FH (80-inch, flat)
- VPS-100FH (100-inch, flat)
- VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

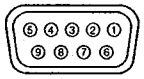
1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

RS-422A

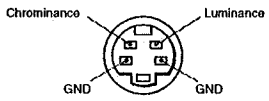
1	GND	Ground	6	GND	Ground
2	$\overline{TX}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{RX}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)



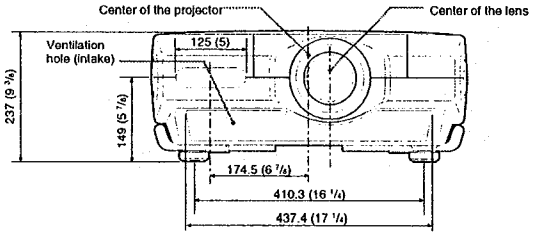
1	GND	Ground	6	GND	Ground
2	$\overline{BUSY}$	Busy	7	BUSY	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{TX/RX}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

S VIDEO connector (mini DIN 4-pin)

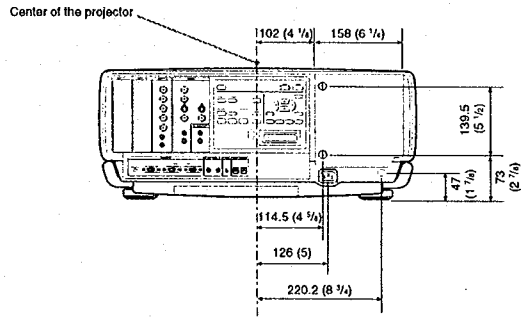


Dimensions

Front

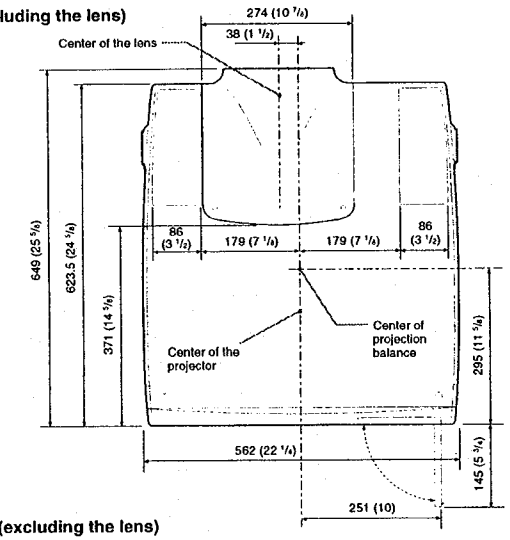


Rear

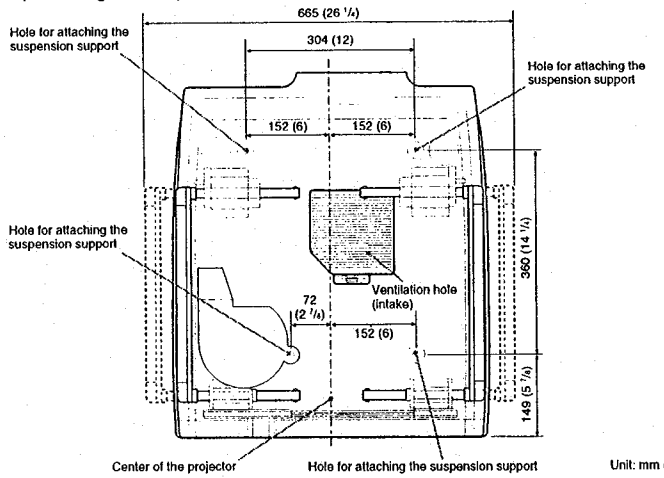


Unit: mm (inches)

Top (excluding the lens)

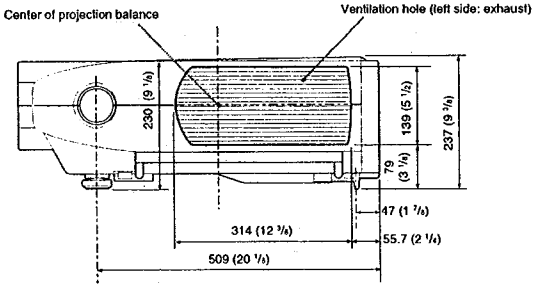


Bottom (excluding the lens)



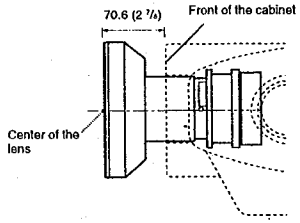
Unit: mm (inches)

Side (excluding the lens)

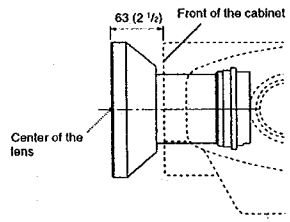


Dimensions from the front of the cabinet to the center of the lens

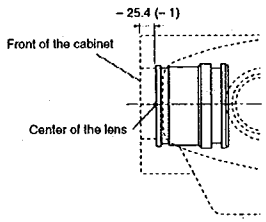
When installing the VPLL-2009 fixed short focus lens



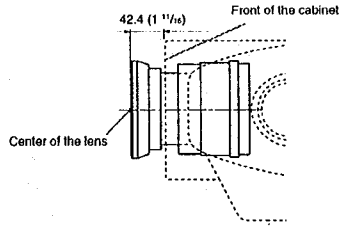
When installing the VPLL-2014 fixed short focus lens



When installing the VPLL-Z2019 1.3-times zoom standard focus lens



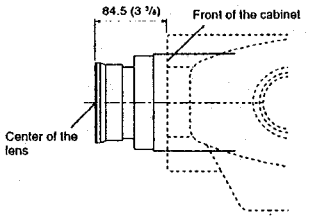
When installing the VPLL-Z2025 1.6-times zoom long focus lens



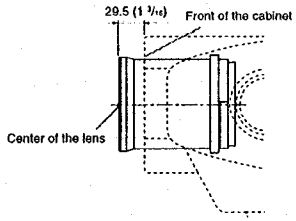
Unit: mm (inches)

Specifications

When installing the VPLL-Z2039 1.5-times+ zoom long focus lens



When installing the VPLL-2075 fixed long focus lens



Unit: mm (inches)

Index

A

Adjusters 9 (GB)
Adjusting
  picture 25 (GB)
  picture size/shift 27 (GB)
  zoom 22 (GB)
Air filter 49 (GB)
ASPECT 28 (GB)
AUDIO MUTING 23 (GB)

B

Battery
  Installation 17 (GB)
  notes 17 (GB)
BLANKING 28 (GB)
BNC connector 42 (GB)
BRIGHT 25 (GB)

C

Carrying handles 9 (GB)
Caution messages 51 (GB)
COLOR 25 (GB)
COLOR SYS (System) 26 (GB)
COLOR TEMP 26 (GB)
Connections
  active speakers 20 (GB)
  BNC Connector 42 (GB)
  computer 20 (GB)
  15k RGB/component equipment 42 (GB)
  Remote Commander 17 (GB)
  switcher 43 (GB)
  VCR 20 (GB)
CONTRAST 25 (GB)
Cut off
  the picture 23 (GB)
  the sound 23 (GB)

D, E

D. (Dynamic) PICTURE 25 (GB)
Device index 31 (GB), 45 (GB)
DOT PHASE 27 (GB)
DRC (Digital Reality Creation) 26 (GB)

F

fH (Horizontal frequency) 29 (GB)
FOCUS 22 (GB)
fV (Vertical frequency) 29 (GB)

G

GAMMA MODE 26 (GB)
Group index 31 (GB), 45 (GB)

H

Handle lever 9 (GB)
H FILTER 28 (GB)
HUE 25 (GB)

I, J, K

INPUT-A 32 (GB)
INPUT-B 32 (GB)
INPUT-C 32 (GB)
INPUT MEMORY No. 29 (GB)
INPUT SETTING menu 27 (GB)
Input signal selection 21 (GB)
Installation examples
  on a ceiling 38 (GB)
  on a floor 19 (GB), 34 (GB)

L

Lamp replacement 48 (GB)
LANGUAGE 30 (GB)
Location and function of controls
  control panel 10 (GB)
  front 8 (GB)
  rear 12 (GB)
  Remote Commander 14 (GB)

M, N

Menu
  Clearing the menu display 24 (GB)
  INPUT SETTING menu 27 (GB)
  PICTURE CTRL menu 25 (GB)
  SET SETTING menu 30 (GB)
  SIGNAL SELECT menu 32 (GB)
  Using the menu 24 (GB)
Moisture condensation 18 (GB)

O

On-screen display 30 (GB)
On-screen messages 51 (GB)
Optional accessories 53 (GB)

P, Q

PC-3000 Signal Interface Switcher 43 (GB)
PIC MUTING 23 (GB)
PICTURE CTRL menu 25 (GB)
PICTURE SHIFT 23 (GB)
Pin assignment 54 (GB)
PJ COM connector 43 (GB)
Power
  turn on 21 (GB)
  turn off 23 (GB)
POWER SAVING 31 (GB)
Precautions 4 (GB)
Precautions on installation 18 (GB)
Projecting 21 (GB)
PSS-2000 Projector Suspension Support 38 (GB)

R

Remote Commander
  battery installation 17 (GB)
  connecting to the projector 17 (GB)
  location and function of controls 14 (GB)
  notes 17 (GB)
Remote control detector
  front 8 (GB)
  rear 11 (GB)
Reset
  resetting the item 24 (GB)
RS-232C/422A connector 13 (GB)

S

SCAN CONV 27 (GB)
Screen size 35 (GB) – 41 (GB)
SET SETTING menu 30 (GB)
SHARP 25 (GB)
SHIFT 27 (GB)
SIGNAL SELECT menu 32 (GB)
SIRCS RECEIVER 31 (GB)
SIZE 27 (GB)
SPEAKER 30 (GB)
Specifications 52 (GB)
STATUS 30 (GB)
Supplied accessories 53 (GB)

T, U, V, W, X, Y

Troubleshooting 50 (GB)

Z

ZOOM 22 (GB)

SONY

3-865-345-11(1)

LCD Data Projector

Installation Manual for Dealers GB
Manuel d'installation destiné aux revendeurs FR
Manual de instalación para proveedores ES

VPL-X2000U
VPL-X2000E
VPL-X2000M

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English

Table of Contents

Precautions ..... **4 (GB)**

Prepararations

Dimensions (Necessary Clearance for Installation and Maintenance) ..... **6 (GB)**
Location and Function of Controls ..... **10 (GB)**
Front ..... 10 (GB)
Rear ..... 14 (GB)
Remote Commander ..... 16 (GB)

Installations

Precautions on Installation ..... **20 (GB)**
Tips on the Screen ..... **21 (GB)**
Before Installing the Projector ..... **23 (GB)**
Attaching the Lens ..... 23 (GB)
Checking the Horizontal Position of the Picture ..... 25 (GB)
Ceiling Installation Using the PSS-2000 ..... 25 (GB)
Installation for Twin/Triple Stacking ..... 25 (GB)
Changing the Polarity According to the Installation Condition ..... 25 (GB)
Installation Examples ..... **26 (GB)**
Floor Installation ..... 26 (GB)
Ceiling Installation ..... 30 (GB)
Installing the Projectors Using the SU-PJ2000 Projector Stand ..... 34 (GB)

Connections/Index number setting

Connection Examples ..... **38 (GB)**
Connecting with a Computer, VCR or Active Speakers ..... 38 (GB)
Connecting 15k RGB/Component Equipment ..... 39 (GB)
Connecting the Switcher ..... 40 (GB)
Connecting Multiple Projectors ..... 42 (GB)
Confirming the System Construction ..... 44 (GB)
Setting the Index Numbers ..... **45 (GB)**

Adjustments

Adjusting the Picture ..... **48 (GB)**
Using the Menu ..... **49 (GB)**
The PICTURE CTRL Menu ..... **50 (GB)**
The INPUT SETTING Menu ..... **52 (GB)**
The SET SETTING Menu ..... **55 (GB)**
The SIGNAL SELECT Menu ..... **57 (GB)**
The SERVICE MODE Menus ..... **58 (GB)**
The INFORMATION Menu ..... 59 (GB)
The SERVICE SETTING Menu ..... 60 (GB)
The W/B ADJUST Menu ..... 61 (GB)
Restoring the USER MODE ..... 62 (GB)

Others

Maintenance ..... **63 (GB)**
Replacing the Lamp ..... 63 (GB)
Cleaning the Air Filter ..... 65 (GB)
Troubleshooting ..... **66 (GB)**
Specifications ..... **68 (GB)**
Index ..... **71 (GB)**

GB English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Carry and handle the projector by more than two people due to an incident of an injury.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- To carry the projector, be sure to use the carrying handle. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector by holding the cover of the cabinet.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 7/8 inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortening lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.
- Do not install the projector on the low ceiling.
- Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for 30 seconds. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

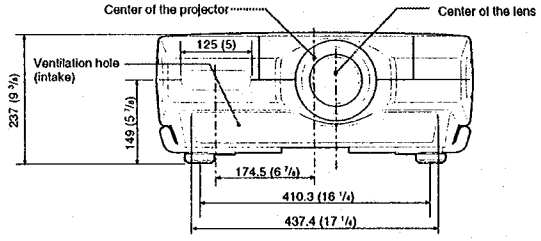
- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Dimensions (Necessary Clearance for Installation and Maintenance)

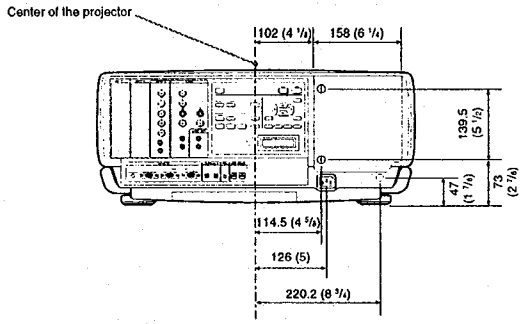
Make sure to provide enough room for maintenance service. Install the projector, making reference to the dimensions below. Also, there should be an enough space around the exhaust and intake holes without blocking them.

A space required around the unit is as follows:
Front: about 50 cm (19 11/16 inches)
Rear: about 30 cm (11 13/16 inches)
Side: about 30 cm (11 13/16 inches)

Front

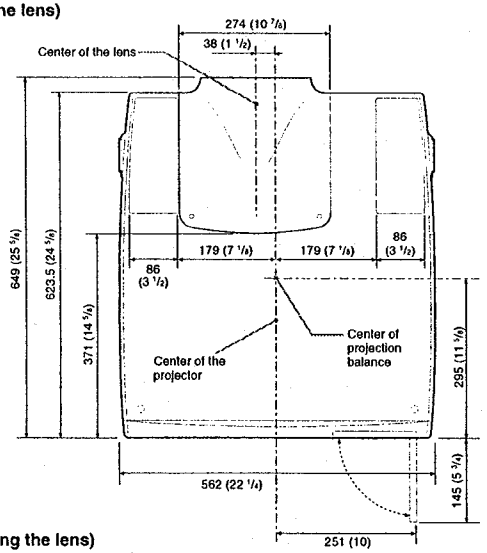


Rear

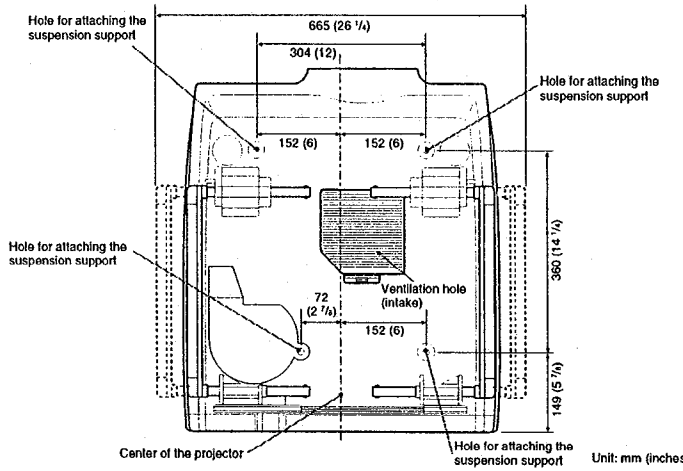


Unit: mm (inches)

Top (excluding the lens)



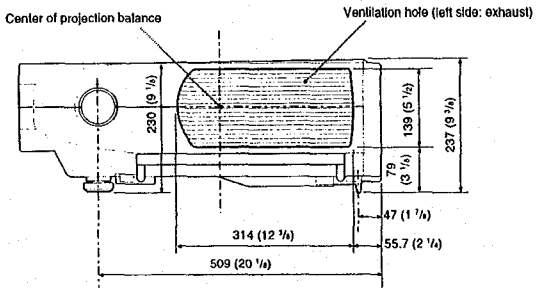
Bottom (excluding the lens)



Unit: mm (inches)

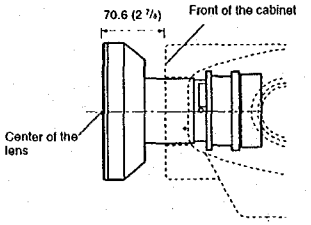
Dimensions (Necessary Clearance for Installation and Maintenance)

Side (excluding the lens)

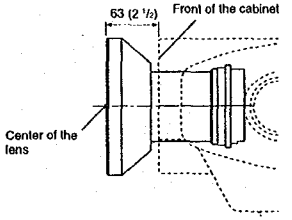


Dimensions from the front of the cabinet to the center of the lens

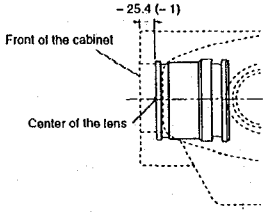
When installing the VPLL-2009 fixed short focus lens



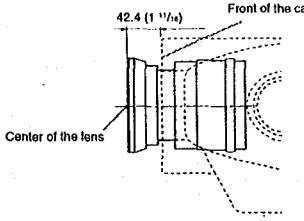
When installing the VPLL-2014 fixed short focus lens



When installing the VPLL-Z2019 1.3-times zoom standard focus lens

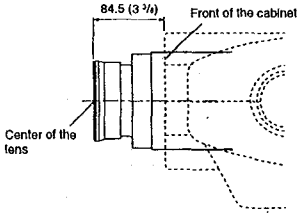


When installing the VPLL-Z2025 1.6-times zoom long focus lens

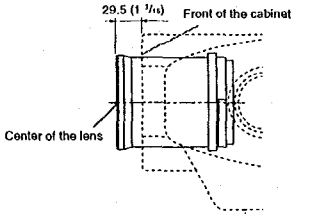


Unit: mm (inches)

When installing the VPLL-Z2039 1.5-times zoom long focus lens



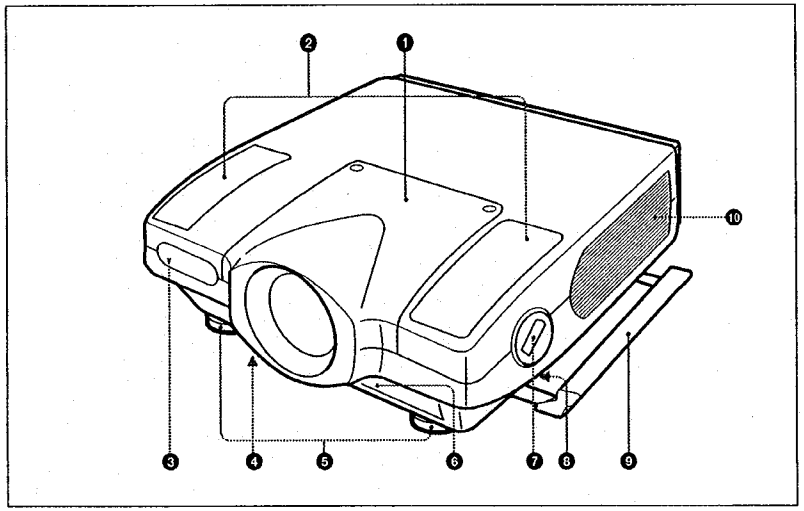
When installing the VPLL-2075 fixed long focus lens



Unit: mm (inches)

Location and Function of Controls

Front



1 **Lens mount part**
When attaching the optional lens, consult with the Sony service personnel.

2 **Speaker**

3 **Front remote control detector**

4 **Bottom ventilation holes (intake)**
Do not block the holes.

5 **Adjusters**
Use the adjusters to keep the projector level if it is installed on an uneven surface.

6 **Front ventilation holes (intake)**
Do not block the holes.

7 **Adjuster button and lever**
Press the button to raise the lever for adjusting the height of the adjuster.

8 **Handle lever (left and right sides)**
Use the lever for putting away the carrying handle.

9 **Carrying handle (left and right sides)**
Pull out the handle for carrying the projector.

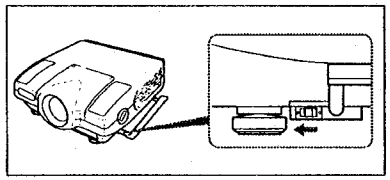
! ... **Left and right side ventilation holes (exhaust)**
Do not place anything within the 30 cm (11 7/8 inches) range from these holes or block them.

Notes

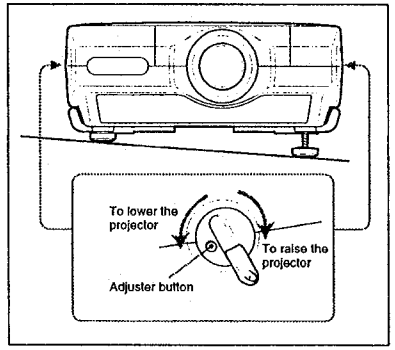
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

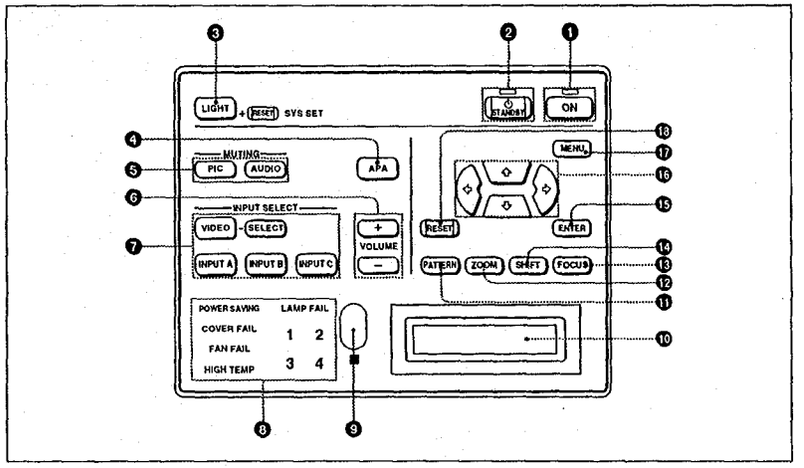


1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel



1 ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for 30 seconds, during which you will not be able to turn the power back on with the ON key.

2 STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

3 LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

4 APA (Auto Pixel Allgnment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

5 MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

6 VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

❼ INPUT SELECT keys
Select the input signal.
VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

Note on the VPL-X2000E
The optional IFB-X2000E interface board is required to select VIDEO.

❽ Indicators
POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.
FAN FAIL: Lights when the fan is broken.
HIGH TEMP: Lights when temperature inside the projector becomes unusually high.
LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.
↑: Enlarges the picture size.
↓: Reduces the picture size.

Note
If the VPLL-2075, VPLL-2014 or VPLL-2009 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.
↑: Focuses on a forward picture.
↓: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.
↑: Moves the picture upward.
↓: Moves the picture downward.

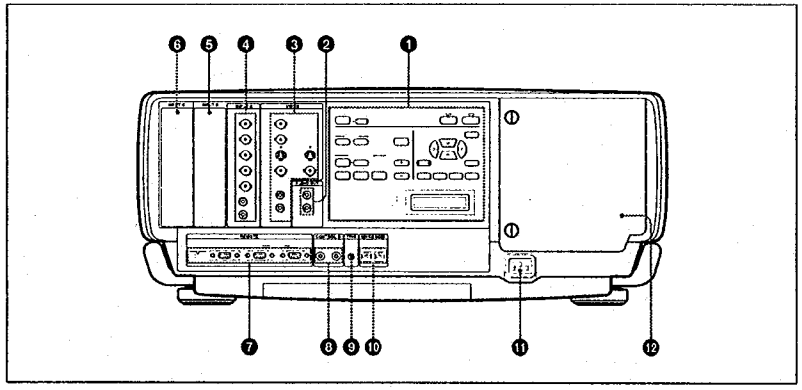
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (↑/↓/←/→)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



❶ Control panel
For details, see pages 12 (GB) and 13 (GB).

❷ AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

❸ VIDEO connectors
Connect to external video equipment, such as a VCR.
- **Y IN/C IN (BNC type):** Connect to the Y and C video outputs of the video equipment.
- **S VIDEO IN (mini DIN 4-pin):** Connects to the Y/C video output of the video equipment.
- **S VIDEO OUT (mini DIN 4-pin):** Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.
- **VIDEO IN (BNC type):** Connects to the composite video output connector of the video equipment.
- **VIDEO OUT (BNC type):** Used as loop-through output of the VIDEO IN connector.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

❹ INPUT A connectors
- **RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type):** Connect to the video outputs of equipment such as a computer or a video camera.
  According to the connected equipment, the RGB or component (R-Y, Y, B-Y) or HDTV (P_R, Y, P_B) signal is selected.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ Signal interface board attachment part (INPUT C)
Optional signal interface board can be attached according to your requirements.

Note
You cannot select the output mode when attaching the IFB-12A interface board.

❼ REMOTE connectors
Used to expand system capability.
- **RS-232C/RS-422A select switch:** Selects according to the interface connected to the RS-232C/RS-422A connector.
- **RS-232C/RS-422A connector (D-sub 9-pin, female):** Connect to a computer to operate the projector from the computer.
- **PJ COM IN/OUT connectors (D-sub 9-pin, female):** The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.

For details on connections, see the PJ COM protocol manual for Sony projectors.

❽ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.
- **CONTROL S IN/PLUG IN POWER (DC 5 V output) jack:** Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.
- **CONTROL S OUT jack:** Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❾ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) When the power is on, the TRIG jack transmits approximately 12 V trigger signal to external equipment connected to the projector. This signal is useful when you connect a system integrator, etc., to the projector; you can pull down an electric screen, draw an electric curtain, or dim lights at the same time as you turn on the projector power. (You cannot use the trigger signal as a power source.)
This jack outputs 0 V DC when the power is off.

❿ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between "01" and "99". It is set to "01" at the factory. You can also set the group index number in the menu for system setup.

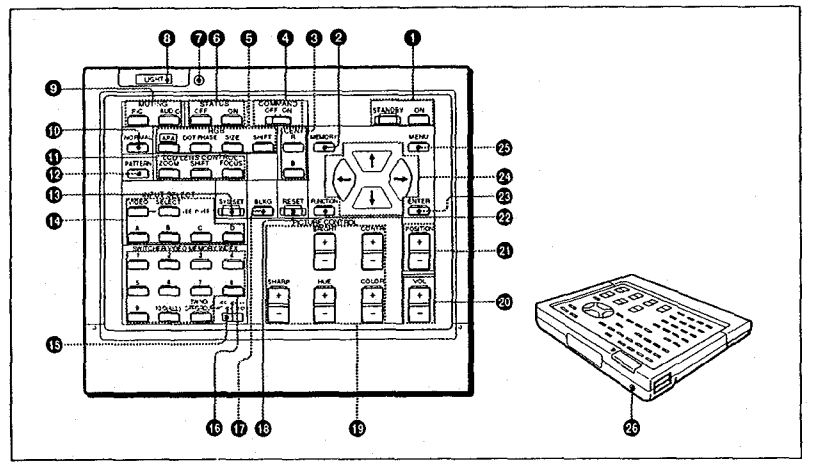
Note
Do not set the device index number to "00". If you do, the projector will be operated only with the keys on the control panel.

⓫ AC IN socket
Connect the supplied AC Power cord.

⓬ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 12 (GB) and 13 (GB).



❶ ON/STANDBY keys

❷ MEMORY key
The key does not function with this projector.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF key
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA: The key functions the same as the APA key on the control panel.
DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

❼ Transmission indicator
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ LIGHT button
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ MUTING keys

❿ NORMAL key
The key does not function with this projector.

⓫ LCD LENS CONTROL keys
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⓬ PATTERN key

⓭ SYS SET (system set) key
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ INPUT SELECT keys
The D key does not function with this projector.

⓯ SWITCHER/VIDEO MEMORY/INDEX select switch
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.
SWITCHER: selects the input from the PC-3000 switcher.
VIDEO MEMORY: The position does not function with this projector.
INDEX: selects a projector by its index number when multiple projectors are used.

⓰ SWITCHER/VIDEO MEMORY/INDEX keys

When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows:
SW NO → 2 → 4.

When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ BLKG (blanking) adjustment key
Enters the blanking adjustment mode.
Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ RESET key

⓳ PICTURE CONTROL +/– keys
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ VOL (volume) +/– keys

㉑ POSITION +/– keys
These keys do not function with this projector.

(Continued)

㉒ **FUNCTION key**
The key does not function with this projector.

㉓ **ENTER key**

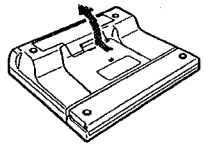
㉔ **Arrow keys**

㉕ **MENU key**

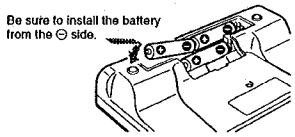
㉖ **CONTROL S OUT jack**
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.



3 Replace the lid.

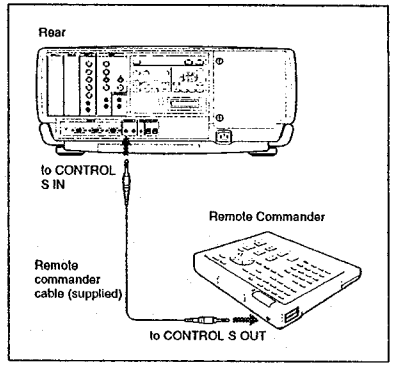
Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector



Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

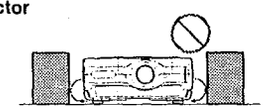
Precautions on Installation

Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place

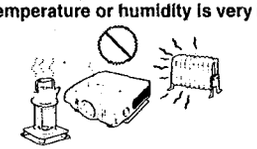
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

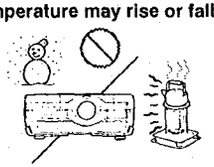


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

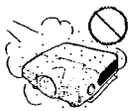


Avoid installing the projector in a location where temperature may rise or fall rapidly

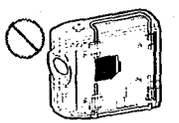


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

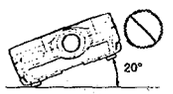
Avoid installing the projector in a location subject to excessive dust



Do not use the projector while laying it on its side



Do not tilt the projector when in use

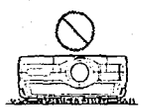


Avoid tilting the projector more than 20 degrees or installing it other than on the floor and ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.

Do not cover the ventilation holes (exhaust)

Do not cover the front ventilation holes; otherwise, internal heat may build up.

Do not install the projector on a deep-pile carpet



If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Tips on the Screen

Screen size

The screen size is the diagonal length of the screen in inches, while the aspect ratio of the screen is 3:4. The ratio of the screen height, width, and diagonal is 3:4:5.
If you use a screen with 3:4 aspect ratio whose size is not given in the table below, you can calculate the screen height and width from the screen size (inches) as follows.
Calculate at the conversion rate of 25.4 mm to the inch.

Height (mm) = Screen size × 25.4 × $^3/_5$
Width (mm) = Screen size × 25.4 × $^4/_5$

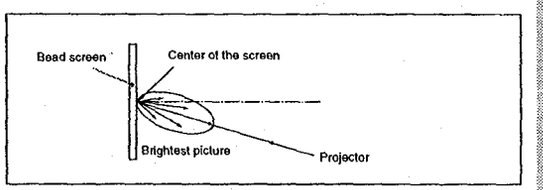
Screen size and dimensions

Screen sizes (inches) (Diagonal)	Height (mm)	Width (mm)
60	914	1219
80	1219	1626
100	1524	2032
120	1829	2438
150	2286	3048
180	2743	3658
200	3048	4064
250	3810	5080
300	4572	6096

Types of screen

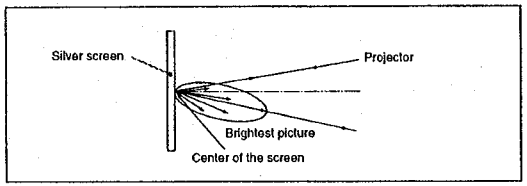
Front projection screen for floor installation

The bead screen is recommended. A screen of this type reflects the brightest light.

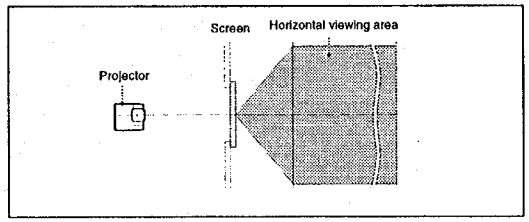


Tips on the Screen

Front projection screen for ceiling installation
The silver screen is recommended. You can get a picture that is two to four times brighter than that of the white screen.

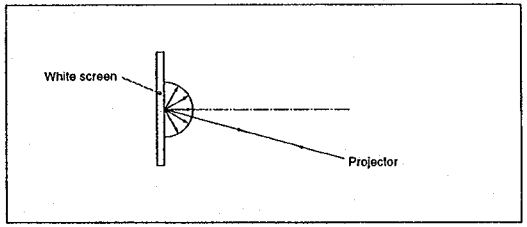


Rear projection screen
The rear projection screen is recommended for a bright and clear full-screen picture projection since the sunlight has little effect on the screen.



Notes
- A moiré pattern may occur in accordance with the pitch of the screen.
- Be sure to confirm the picture quality before installation.

White screen
When viewers watch the projected picture in a wide area, you can obtain a picture that appears equally bright from all parts of the room using the white screen for both floor and ceiling installations.



Before Installing the Projector

Attaching the Lens

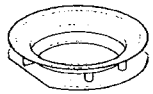
Attach one of the following types of optional lenses to the projector according to your purpose.
- VPLL-2009 fixed short focus lens
- VPLL-2014 fixed short focus lens
- VPLL-Z2019 1.3-times zoom standard focus lens
- VPLL-Z2025 1.6-times zoom long focus lens
- VPLL-Z2039 1.5-times zoom long focus lens
- VPLL-2075 fixed long focus lens

To attach the lens, follow the steps below.

Before attaching the lens

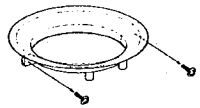
The lens ring used for the lens and the attaching method vary depending on the types of lenses. Check your lens type by referring below.

Unit type lens ring (supplied with the projector)



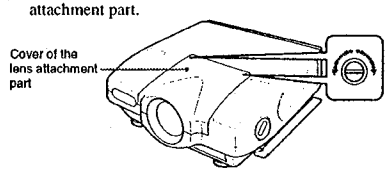
The unit type lens ring is used for the VPLL-Z2025, VPLL-Z2039 and VPLL-2075.

Assembly type lens ring (attached to the projector)

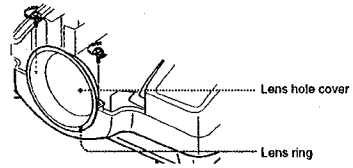


The assembly type lens ring is used for the VPLL-2014, VPLL-2009 and VPLL-Z2019. For the VPLL-2014 and VPLL-2009, disassemble the ring by removing the screws before attaching.
For VPLL-Z2019, attach the lens ring without disassembling.

1 Turn the screws on the lens attachment part either clockwise or counterclockwise by 90 degrees with a screwdriver, then remove the cover from the lens attachment part.

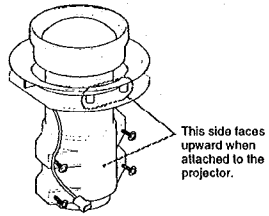


2 Remove the lens ring and the lens hole cover.

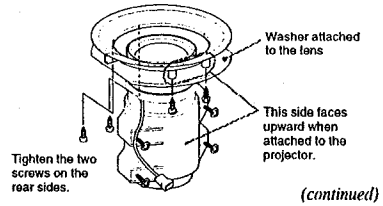


3 Attach the lens ring to the lens.

For VPLL-Z2025, VPLL-Z2039 and VPLL-2075



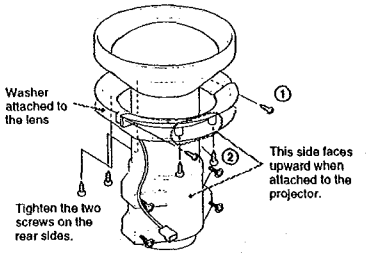
For VPLL-Z2019
Attach the lens washer to the lens ring with the four screws.



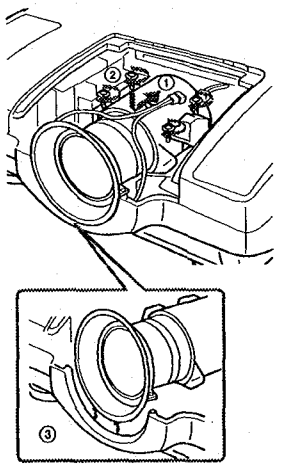
(continued)

For VPLL-2014 and VPLL-2009

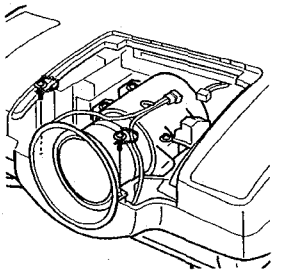
① Disassemble the lens ring and attach it to the lens.
② Attach the lens washer to the lens ring with the four screws.



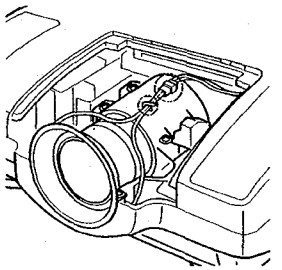
4 Mount the lens onto the projector.
① Install the lens onto the projector, and push the lens until it touches the stopper.
② Secure the lens by tightening the four screws.
③ Fit the projections on the lens ring to the groove on the projector.



5 Tighten the two screws on the lens ring to secure the ring firmly.



6 Attach the connector from the lens to the projector and fix it with the cable harness.



7 Replace the cover for the lens attachment part and tighten the screws.

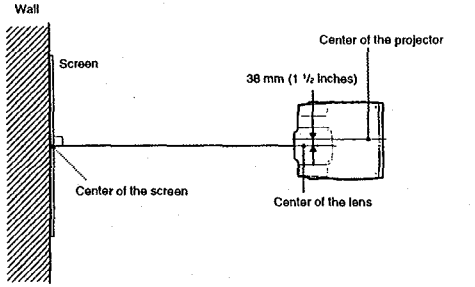
Notes

- When attaching the lens, be careful not to overtighten the screws.
- The lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Avoid touching the lens surface.

Checking the Horizontal Position of the Picture

Install the projector so that the center of the lens is aligned with the horizontal center of the screen.

Horizontal positioning (top view)



Ceiling Installation Using the PSS-2000

Refer to the Operating Instructions supplied with the PSS-2000 projector suspension support.

Installation for Twin/Triple Stacking

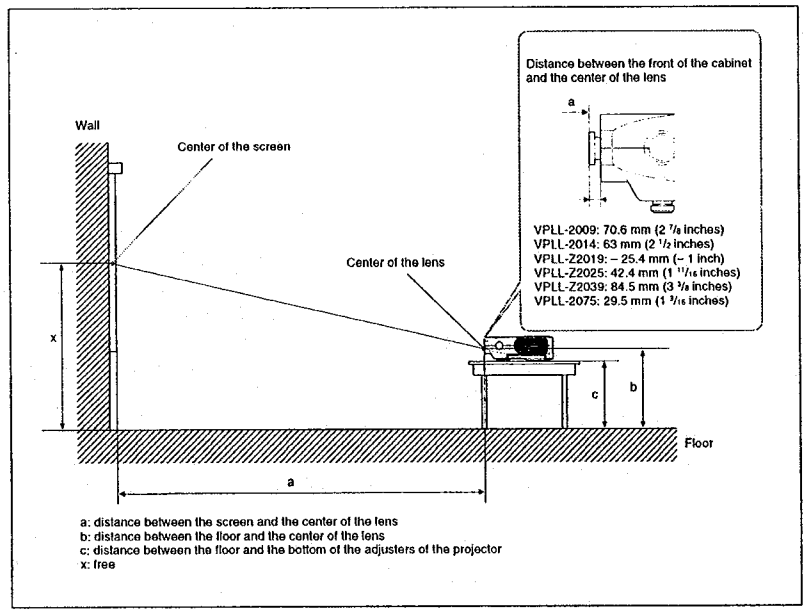
Refer to the Operating Instructions supplied with the SU-PJ2000 projector stand.

Changing the Polarity According to the Installation Condition

The polarity of the projector is adjusted at the factory to use the projector for front projection on the floor.
When the projector is installed on the ceiling, it is necessary to change the setting of INSTALLATION in the SET SETTING menu to project the picture properly.
For details, see page 55 (GB).

Installation Examples

Floor Installation



When using the VPLL-2009 fixed short focus lens

Make sure that the center of the lens is aligned with the vertical center of the screen.

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		640 (25 1/4)	1410 (55 5/8)	1800 (70 7/8)	2190 (86 1/4)	2770 (109 1/8)	3350 (132)	3730 (146 7/8)	4700 (185 1/8)	5670 (223 3/8)	6630 (261 1/8)	7600 (299 1/4)	8570 (337 1/2)	9530 (375 1/4)
b	Min.	x–11 (x–7/16)	x–22 (x–7/8)	x–28 (x–1 1/8)	x–33 (x–1 5/16)	x–41 (x–1 11/16)	x–50 (x–2)	x–55 (x–2 1/4)	x–69 (x–2 3/4)	x–83 (x–3 3/4)	x–96 (x–3 7/8)	x–110 (x–4 3/8)	x–124 (x–5)	x–138 (x–5 1/2)
	Center	x												
	Max.	x+11 (x+7/16)	x+22 (x+7/8)	x+28 (x+1 1/8)	x+33 (x+1 5/16)	x+41 (x+1 11/16)	x+50 (x+2)	x+55 (x+2 1/4)	x+69 (x+2 3/4)	x+83 (x+3 3/8)	x+96 (x+3 7/8)	x+110 (x+4 3/8)	x+124 (x+5)	x+138 (x+5 1/2)
c	Min.	x–154 (x–6 1/8)	x–165 (x–6 1/2)	x–170 (x–6 3/4)	x–176 (x–7)	x–184 (x–7 1/4)	x–192 (x–7 5/8)	x–198 (x–7 7/8)	x–211 (x–8 3/4)	x–225 (x–8 7/8)	x–239 (x–9 1/2)	x–253 (x–10)	x–267 (x–10 1/2)	x–280 (x–11 1/4)
	Center	x–142 (x–5 5/8)												
	Max.	x–130 (x–5 1/4)	x–119 (x–4 3/4)	x–114 (x–4 1/2)	x–108 (x–4 3/8)	x–100 (x–4)	x–92 (x–3 5/8)	x–86 (x–3 1/2)	x–73 (x–2 7/8)	x–59 (x–2 3/8)	x–45 (x–1 13/16)	x–31 (x–1 1/4)	x–17 (x–11/16)	x–4 (x–5/32)

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 35.079/1.814) – 134
b (minimum) = x – (SS/1.814 × 0.5)
b (maximum) = x + (SS/1.814 × 0.5)
c (minimum) = x – (SS/1.814 × 0.5 + 142.5)
c (maximum) = x – (SS/1.814 × – 0.5 + 141.5)

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 5/8)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/8)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 5/8)	14280 (562 3/4)
b	Min.	x–198 (x–7 1/8)	x–397 (x–15 5/8)	x–496 (x–19 3/4)	x–595 (x–23 1/2)	x–744 (x–29 3/8)	x–893 (x–35 1/4)	x–992 (x–39 1/8)	x–1240 (x–48 7/8)	x–1488 (x–58 5/8)	x–1736 (x–68 3/4)	x–1984 (x–78 1/4)	x–2232 (x–88)	x–2480 (x–97 3/4)
	Max.	x												
c	Min.	x–349 (x–13 7/8)	x–548 (x–21 3/8)	x–647 (x–25 1/2)	x–746 (x–29 1/2)	x–895 (x–35 1/4)	x–1044 (x–41 1/8)	x–1143 (x–45 1/8)	x–1391 (x–54 7/8)	x–1639 (x–64 5/8)	x–1887 (x–74 3/8)	x–2135 (x–84 1/8)	x–2383 (x–93 7/8)	x–2631 (x–103 5/8)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
b (minimum) = x – (SS/1.814 × 9.0)
c (minimum) = x – (SS/1.814 × 9.0 + 151.0)

Installation Examples

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 3/4)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/4)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/4)	14840 (584 3/4)	17330 (682 3/4)	19810 (780 1/4)	22300 (878 1/2)	24790 (976 1/4)
b	Min.	x–287 (x–11 3/4)	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x												
c	Min.	x–442 (x–17 1/2)	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025

a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 5/8)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 5/8)	18030 (709 15/16)	20630 (812 3/4)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/4)	14080 (554 1/2)	15660 (616 5/8)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/4)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025

a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/8)	14510 (571 3/4)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 3/4)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/8)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 5/8)	23120 (910 3/4)	28940 (1139 5/8)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025

a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 5/8)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a ≈ (SS × 269.100/1.814) + 163

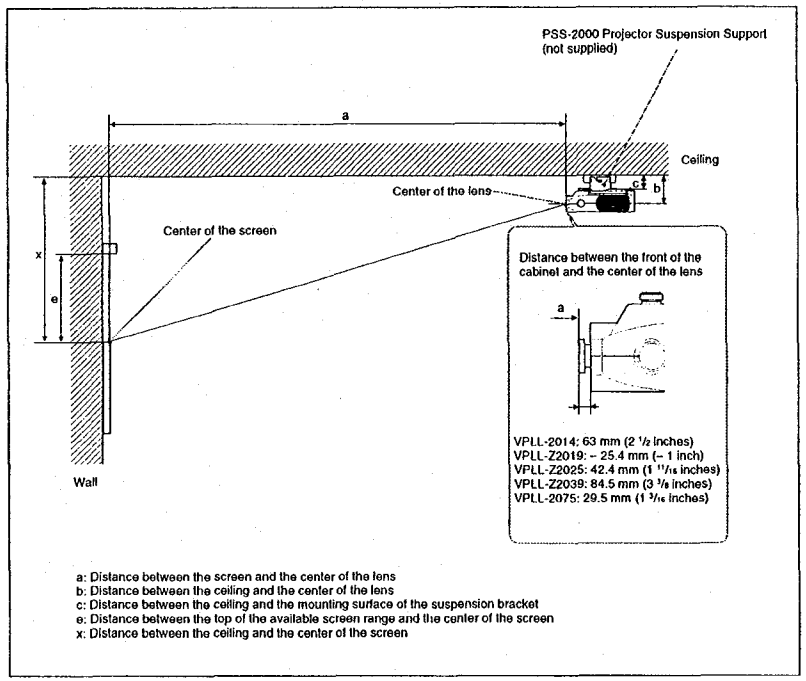
b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

Installation Examples

Ceiling Installation

When installing the projector on the ceiling, use the PSS-2000 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.



a: Distance between the screen and the center of the lens
b: Distance between the ceiling and the center of the lens
c: Distance between the ceiling and the mounting surface of the suspension bracket
e: Distance between the top of the available screen range and the center of the screen
x: Distance between the ceiling and the center of the screen

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 3/4)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/4)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 1/4)	14280 (562 3/8)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+140 (c+5 1/2)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+338 (c+13 3/8)	c+536 (c+21 1/8)	c+636 (c+25 1/8)	c+735 (c+29)	c+884 (c+34 7/8)	c+1033 (c+40 3/4)	c+1132 (c+44 5/8)	c+1380 (c+54 3/8)	c+1628 (c+64 1/8)	c+1876 (c+73 7/8)	c+2124 (c+83 3/4)	c+2372 (c+93 1/2)	c+2620 (c+103 1/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 9.0 + 139.6)

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 1/2)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/4)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/8)	14840 (584 3/8)	17330 (682 3/8)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+144 (c+5 3/4)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+430 (c+17)	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 1/4)	c+3726 (c+146 7/8)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025
a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 3/8)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 5/8)	18030 (709 15/16)	20630 (812 3/8)	23230 (914 3/4)	25830 (1017 1/8)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/16)	14080 (554 1/2)	15660 (616 3/8)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/8)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025
a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 3/4)	12070 (475 3/4)	14510 (571 3/4)	16150 (636)	20220 (796 1/4)	24300 (956 3/4)	28380 (1117 1/2)	32460 (1278 1/4)	36540 (1438 3/4)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/4)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 5/8)	23120 (910 3/4)	28940 (1139 1/2)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: 104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025
a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 3/4)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 3/4)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 1/4)	74330 (2926 3/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 269.100/1.814) + 163
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

Installing the Projectors Using the SU-PJ2000 Projector Stand

When installing the projectors using the SU-PJ2000 projector stand for stacking, install the projectors following the installation measurements below.

For details on how to install the SU-PJ2000 projector stand, refer to the installation manual supplied with the SU-PJ2000 projector stand.

Note on stacking

To properly align the pictures from both projectors, set the zoom to the center of the adjustment range.

1 Install the projector following the "a" value in the stacking example.
2 Use the zoom to align the pictures from the first and second projectors so that they fill the screen.

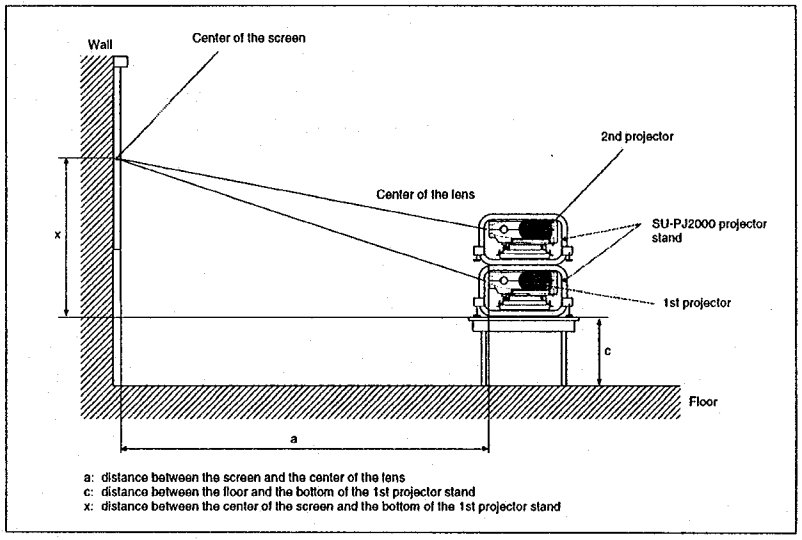
Available screen size for stacking

When attaching the VPLL-Z2019, VPLL-Z2025 and VPLL-Z2039 lens (not supplied), 80 to 500-inches screens are available for twin stack installation, and 100 to 500-inches screens are available for triple stack installation.

Notes

- If the VPLL-2009, VPLL-2014 or VPLL-2075 optional lens is mounted, you cannot perform stack installation.
- For safety and maintenance purposes, install the projectors away from the wall. Leave a minimum space of 30 cm (11 7/8 inches) from both sides and a minimum space of 70 cm (27 5/8 inches) from the rear.

Floor installation



a: distance between the screen and the center of the lens
c: distance between the floor and the bottom of the 1st projector stand
x: distance between the center of the screen and the bottom of the 1st projector stand

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		3710 (146 1/4)	4650 (183 1/4)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/4)	11740 (462 3/4)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 85.777/1.814 – 76
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		4530 (178 3/4)	5710 (224 7/8)	6890 (271 3/4)	8660 (341)	10420 (410 3/4)	11600 (456 3/4)	14540 (572 1/4)	17490 (688 3/4)	20430 (804 1/2)	23370 (920 1/4)	26320 (1036 3/4)	29260 (1152 1/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 106.811/1.814 – 176
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		6940 (269 3/4)	8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43600 (1716 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

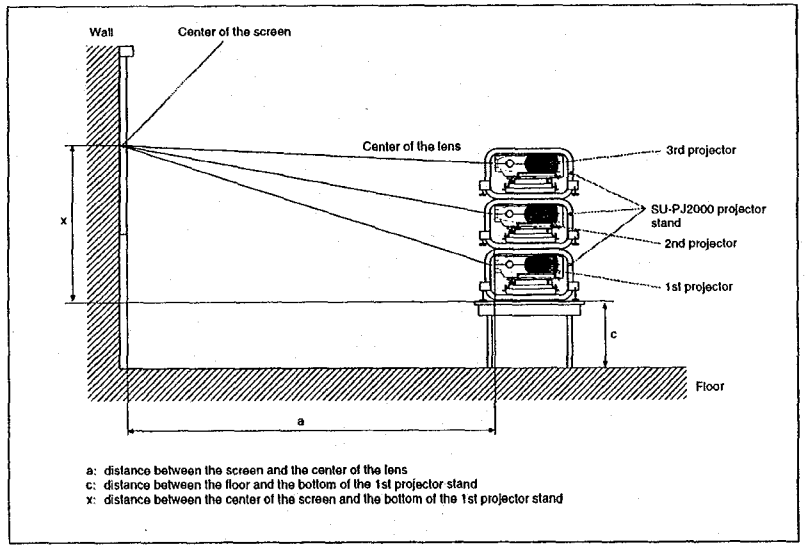
* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 158.802/1.814 – 163
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

Installation Examples

Floor installation for triple-stacking



a: distance between the screen and the center of the lens
c: distance between the floor and the bottom of the 1st projector stand
x: distance between the center of the screen and the bottom of the 1st projector stand

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		4650 (183 1/4)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/4)	11740 (462 3/4)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 85.777/1.814 – 76
c = SS × 0.30 × 25.4 – 921.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		5710 (224 7/8)	6890 (271 3/4)	8660 (341)	10420 (410 3/8)	11600 (456 1/4)	14540 (572 5/8)	17490 (688 3/4)	20430 (804 1/2)	23370 (920 1/4)	26320 (1036 3/4)	29260 (1152 1/8)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 106.811/1.814 – 176
c = SS × 0.30 × 25.4 – 921.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43600 (1716 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 158.802/1.814 – 163
c = SS × 0.30 × 25.4 – 921.6
x (maximum) = SS/1.814 × 13.0 + 230.6

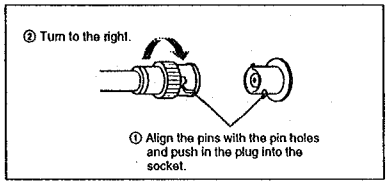
Connection Examples

Also refer to the instruction manual of the equipment to be connected.

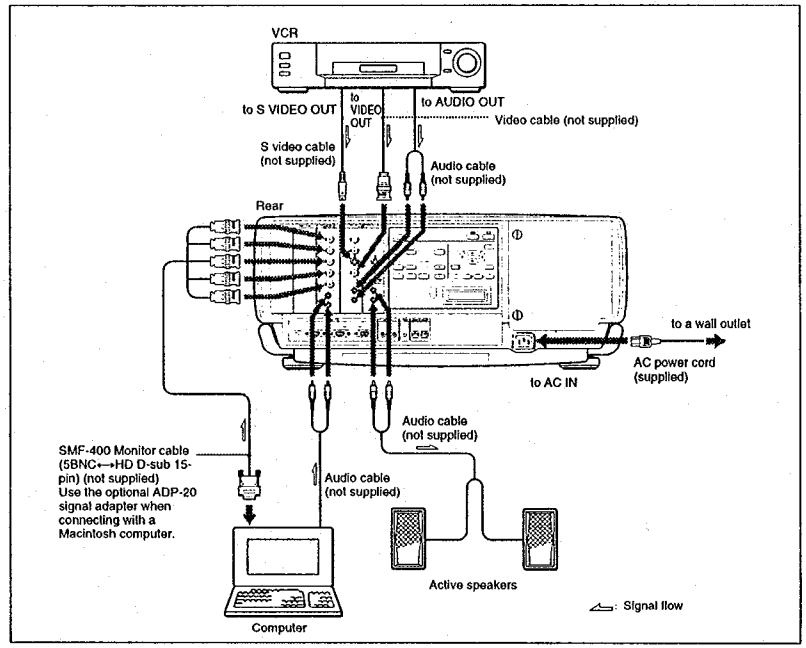
When making connections, be sure to:
- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

Connecting a BNC connector

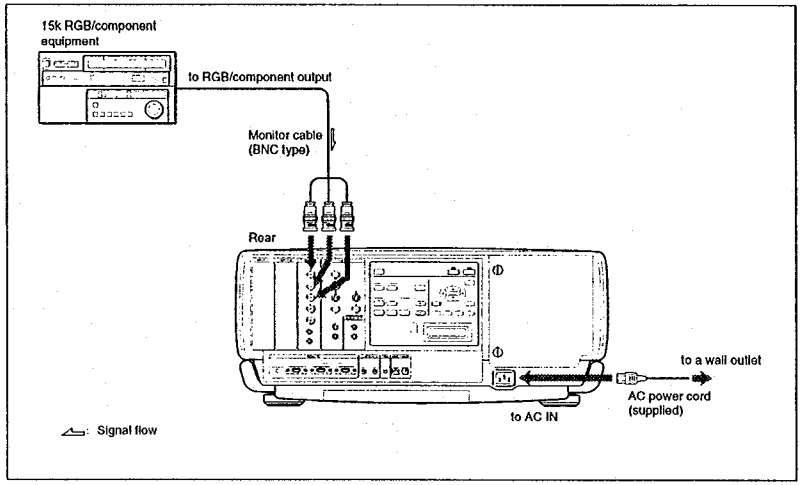


Connecting with a Computer, VCR or Active Speakers



Note
Set INPUT-A in the SIGNAL SELECT menu to RGB.
For details, see page 57 (GB).

Connecting 15k RGB/Component Equipment



Note
Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 57 (GB).

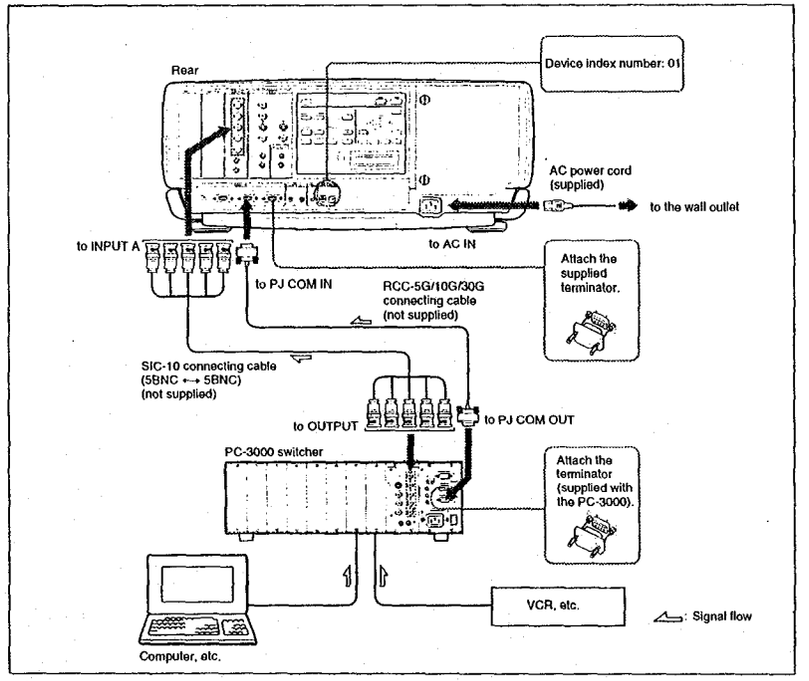
Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 17 (GB).

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, activate the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
For details, see page 56 (GB).
- After all the connections are complete, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.

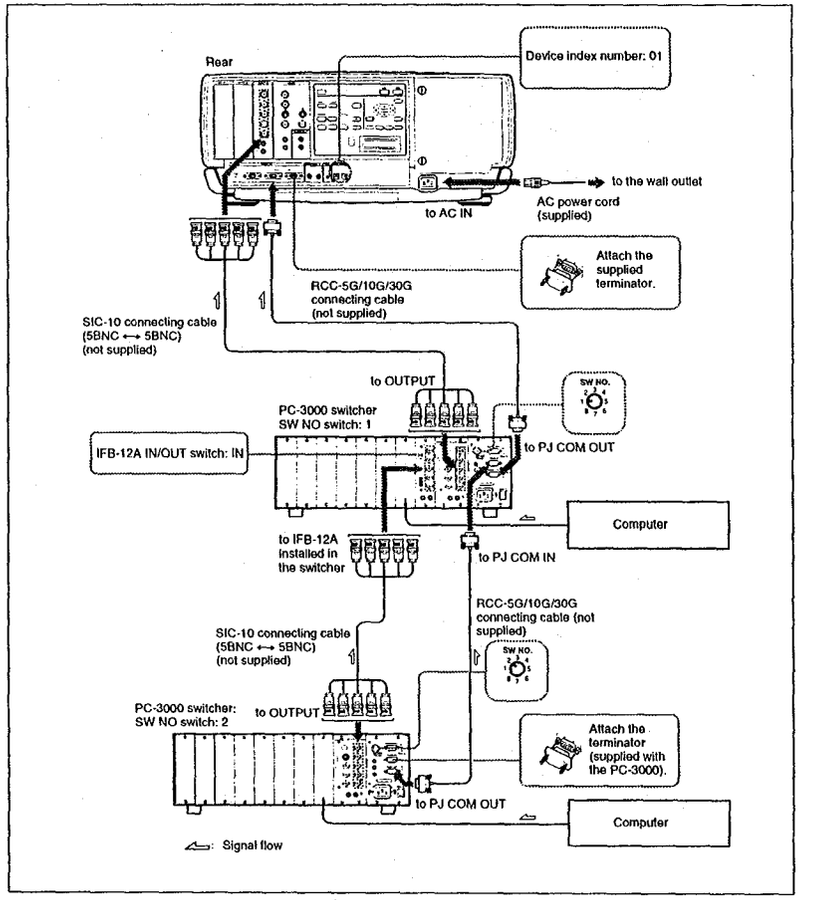
To connect a single switcher



To connect two switchers

Notes

- Set the device index number of the projector to be connected to the switcher to 01.
- Set the SW NO switch on the switcher to be connected to the projector to 1. Install the IFB-12A interface board onto the switcher, and set the IN/OUT switch on the IFB-12A to IN.



Connection Examples

Connecting Multiple Projectors

Following are examples of multiple projectors installed onto the optional SU-PJ2000 projector stand, such as by stacking.

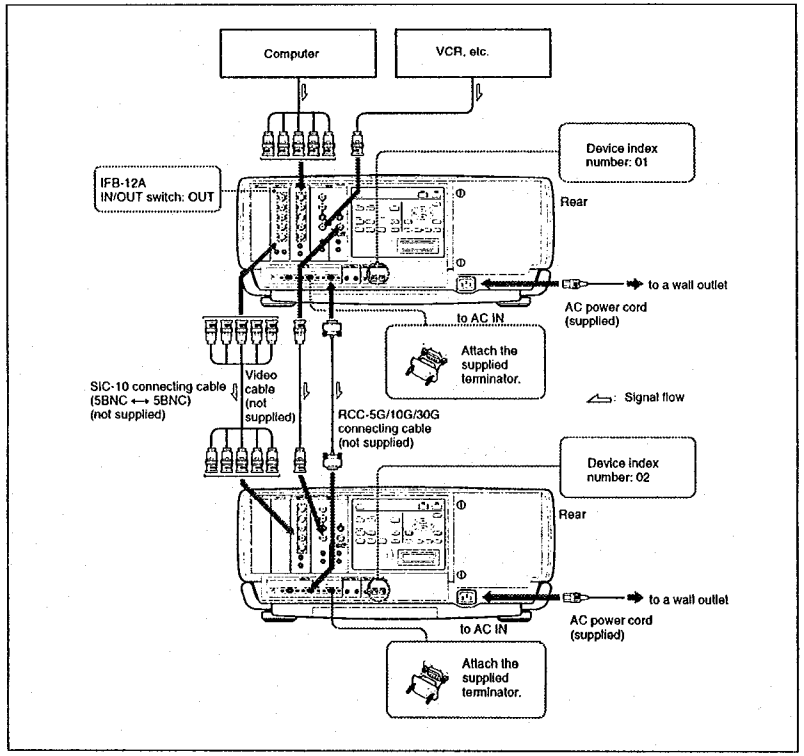
For details on the SU-PJ2000 projector stand, refer to the installation manual supplied with it.

When not using the switcher

Install the optional IFB-12A interface board in the first projector.
Set the IN/OUT switch on the IFB-12A to OUT.
For details on the IFB-12A interface board, refer to the operating instructions supplied with it.

Note

Installing the interface board and setting up the switch must be done while the power of the projector is off.

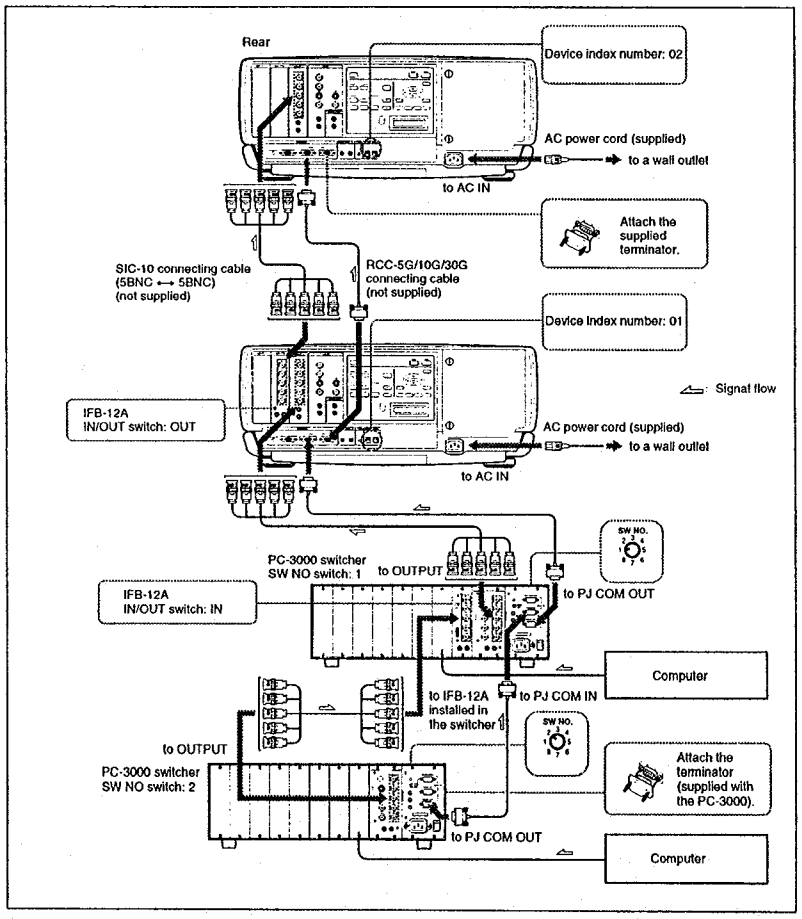


When using the switcher

When connecting two PC-3000 switchers, up to 15 inputs can be selected as the input from the switchers. Install the IFB-12A interface board in the first switcher (on which you set the SW NO switch to 1) and set the IN/OUT switch on the board to IN.

Notes

- Be sure to set the switcher number.
- Be sure to turn off the power of the projector when setting up the device index number and connecting cables.



Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets.

2 Press the SYS SET key on the Remote Commander.
You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are complete. If you press the key(s), "Master Switcher not exist" appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

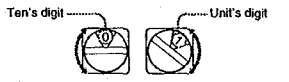
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 56 (GB).

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to "01" at the factory.
If only one projector is connected, set it to "01."



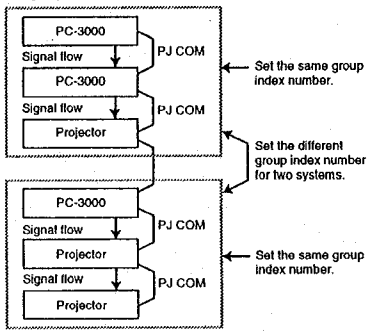
Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to "00." If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

Setting the Index Numbers

Notes on setting of the index number

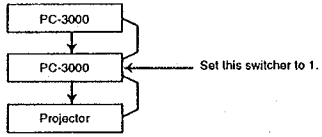
- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**



For setting the group index number, see "GROUP INDEX" on page 56 (GB).

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.

- **Set the switcher that outputs the signal to the projector to number 1.**

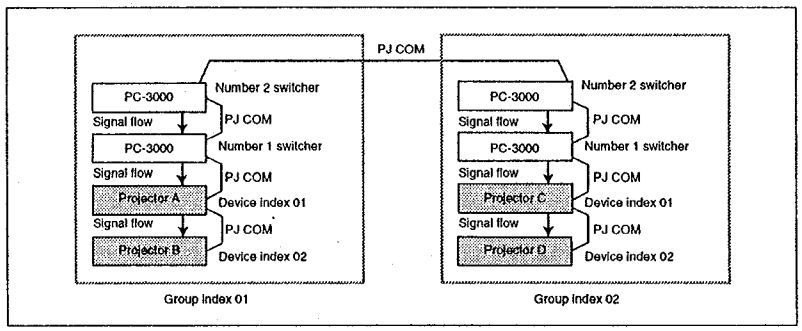


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.



Example:
To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes

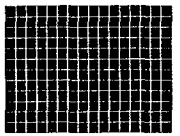
- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.

Example:
To select a projector with device index 13 of group index 12
GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Adjusting the Picture

This section describes how to adjust the focus, size and vertical position of the picture when the projector is installed on the floor. For twin/triple stack installation, refer to the Installation Manual supplied with the SU-PJ2000 projector stand.

1 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



2 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

"FOCUS" appears on the screen during adjustment.

3 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

"ZOOM" appears on the screen during adjustment.

Note

If the optional VPLL-2075, VPLL-2014 or VPLL-2009 lens is installed, you cannot adjust the zoom.

4 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

"FOCUS" appears on the screen during adjustment.

5 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

6 Press the PATTERN key again to clear the HATCH pattern.

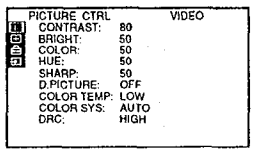
Note

Do not look into the lens when the projector lamp is on.

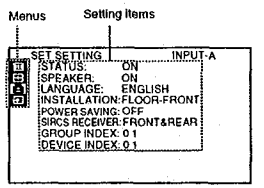
Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.
To change the language used in the menu, see page 55 (GB).

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



3 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

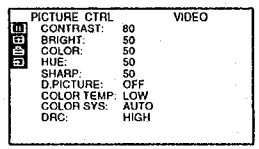
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



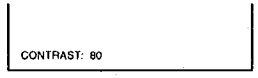
Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

CONTRAST

Adjusts the picture contrast.



The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

Adjusts the picture brightness.

The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

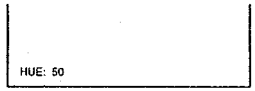
COLOR

Adjusts color intensity.

The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

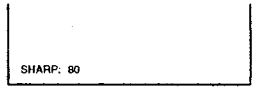
Adjusts skin tones.



At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

SHARP (Sharpness)

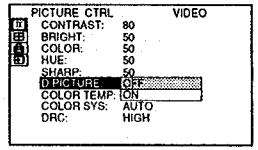
Adjusts the picture sharpness.



The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

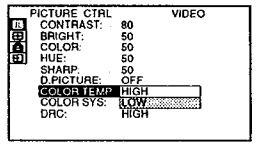
Emphasizes the black color.



ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

COLOR TEMP (temperature)

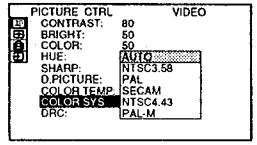
Adjusts the color temperature.



HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (system)

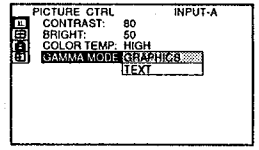
Selects the color system of the input signal.



Normally, set to AUTO.
If the picture is distorted or colorless, select the color system (NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M) according to the input signal.

GAMMA MODE

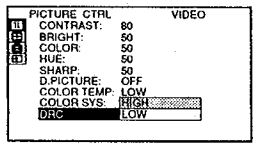
Select either position to obtain an optimum picture.



GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images with lots of text.

DRC (Digital Reality Creation)

Selects the level of DRC effects.



HIGH: Increases the DRC effects.
LOW: Decreases the DRC effects.

Input signals and adjustable/setting items

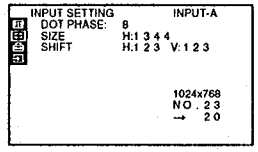
Item	Input signal					
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (preset) (HDTV-Y/PB/PR)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	N	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	N	N	N	Y	N
SHARP	Y	N	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y
DRC	Y	Y	Y	N	N	N

Y: Adjustable/can be set
N: Not adjustable/cannot be set

1) NTSC4.43 is the color system used when playing back a video recorded in NTSC color system on a NTSC4.43 system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



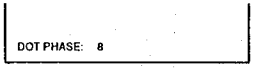
Operation

1. Select an item
Use the V or v key to select the item, then press the b or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the V or b key.
  To decrease the number, press the v or B key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the V or v key to change the setting, then press the B or the ENTER key.
  The original screen is restored.

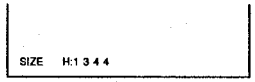
DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.



SIZE

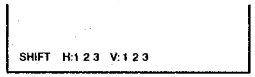
Adjusts the horizontal size of the picture.



As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the B or b key to adjust the horizontal size.

SHIFT

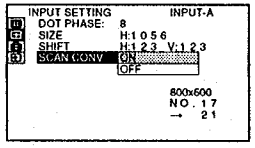
Adjusts the position of the picture.



H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the B or b key to adjust the horizontal position and the V or v key for the vertical position.

SCAN CONV (converter)

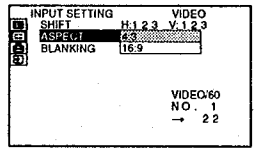
Converts the signal to display the picture according to the screen size.



ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

ASPECT

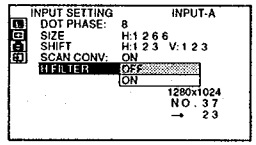
Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.



4:3: When the picture with ratio 4:3 is input
16:9: When the picture with ratio 16:9 (squeezed) is input.

H FILTER

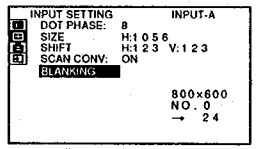
Corrects the vertical bands that appear on the picture.



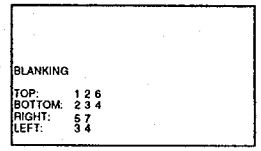
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1024 × 768 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.



Select BLANKING, then press the ENTER key to display the blanking adjustment screen.



Use the V or v key to select the part to be adjusted, and the B or b key to adjust.

Input signals and adjustable/setting items

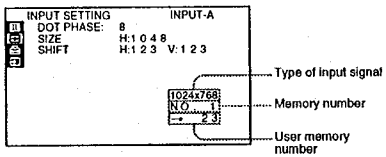
Item	Input signal				
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV)	Y
SIZE	N	N	N	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SVGA)	Y
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (Higher resolution than XGA)	Y (Higher resolution than XGA)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV-GBR, HDTV-$Y/P_B/P_R$ only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

The INPUT SETTING Menu

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.



About the memory function

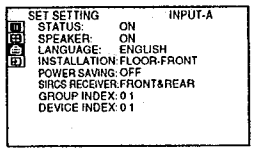
The adjustment data for 39 types of input signals are preset at the factory (preset memory).
When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.
The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.
When you save more than 200 user memories, the newest one always overwrites the oldest one.
The saved user memory number is displayed in the INPUT SETTING menu as n NO. □□.
When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 39 types of signals.

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1235
6	640 x 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 x 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 x 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	—
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 x 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 x 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 x 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 x 864	VESA 70	64.00	70.02	H-pos V-pos	1308
28		VESA 75	67.50	75.00	H-pos V-pos	1422
29		VESA 85	77.49	85.06	H-pos V-pos	1394
30	1152 x 900	SUN LO	61.80	65.96	H-neg V-neg	1283
31		SUN HI	71.71	76.05	C-neg	1256
32	1280 x 960	VESA 60	60.00	60.00	H-pos V-pos	1440
33		VESA 75	75.00	75.00	H-pos V-pos	1382
34	1280 x 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1272
35		SGI-5	53.32	50.06	S on G	1260
36		SXGA VESA 60	63.97	60.01	H-pos V-pos	1272
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1266
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1296
39	1600 x 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1352

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



Operation

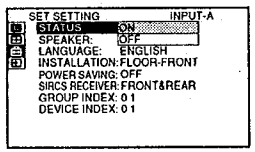
1. Select an item
Use the ↑ or ↓ key to select the item, then press the → key or the ENTER key.

2. Adjust an item
• When changing the adjustment level:
To increase the number, press the ↑ or → key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.

• When changing the setting:
Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
The original screen is restored.

STATUS

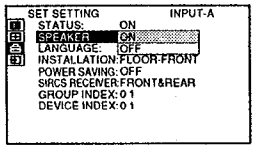
Sets up the on-screen display.



ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus and warning messages.

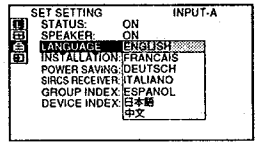
SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.



LANGUAGE

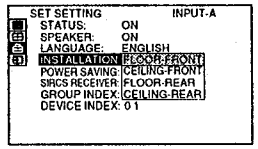
Selects the language used in the menu and on-screen displays.



Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.

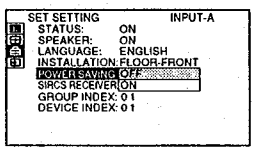


FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note
In case of using a mirror, be careful of installation since the picture may be reversed.

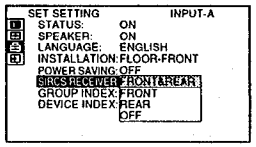
POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.



SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.



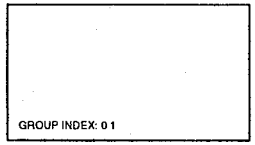
FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

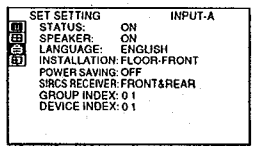
Groups multiple projectors or switchers to operate them simultaneously.



You can set the group index number to the desired number between 01 and 99.

DEVICE INDEX

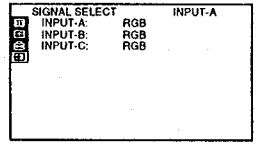
Displays the index number set with the INDEX switches on the rear of the projector. You cannot set the device index number with this menu.



For details for setting the number, see page 45 (GB).

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.

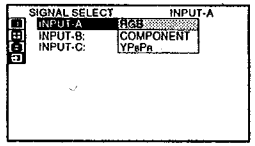


Operation

Use the ↑ or ↓ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors. You can select the RGB, component or HDTV (YPBPR) signal.

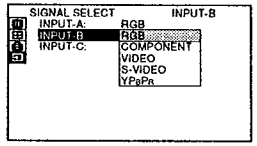


Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section. You can select the RGB, component, HDTV (YPBPR), video or S video signal.

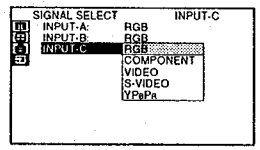


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

INPUT-C

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT C section. You can select the RGB, component, HDTV (YPBPR), video or S video signal.



Note

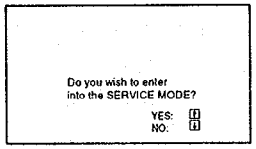
This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT C section.

The SERVICE MODE Menus

Follow the steps below for entering into the SERVICE MODE. The SERVICE MODE is available even when only one of the four lamps for light source functions. Accordingly, you can enter into the mode even if the projector is in standby mode.
Confirm that STATUS is not displayed on the screen.

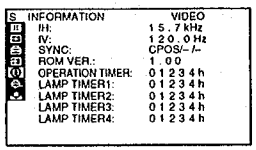
Operation when the projector is on

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following screen appears.

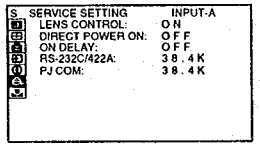


2 Press the ↑ key.
The projector enters into the SERVICE MODE.

3 Press the MENU key.
The SERVICE MODE select menu appears. When the projector enters into the SERVICE MODE, "S" appears on the upper-left corner of the screen.



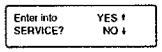
4 Press the ↑ or ↓ key to select the menu, then press the → key or the ENTER key.
The selected menu appears.



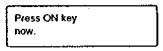
5 Make setting or adjustment on the item.
For details on setting individual items, see pages 59 (GB) to 62 (GB).

Operation when the projector is in standby mode

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following message appears in the display window of the control panel.



2 Press the ↑ key.



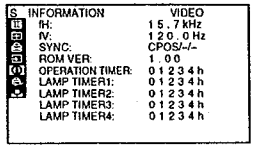
3 Press the ON key within 5 seconds.
The projector enters into the SERVICE MODE.

4 Follow the steps 3 to 5 on the left.

There are three menus in the SERVICE MODE: INFORMATION, SERVICE SETTING, and W/B ADJUST menus.

The INFORMATION Menu

The INFORMATION menu shows the information about the current input signal and the number of operated hours of the projector and lamp.



fH (Horizontal frequency)

Indicates the horizontal frequency of the input signal. The value is not absolute but is only used as a reference.

fV (Vertical frequency)

Indicates the vertical frequency of the input signal. The value is not absolute but is only used as a reference.

SYNC

Indicates the type and the polarity of the sync signal. The indications show the polarity of the composite or horizontal sync signal, vertical sync signal and sync on G signal from the left to the right.
CPOS: The polarity of the composite sync signal is positive.
CNEG: The polarity of the composite sync signal is negative.
POS: The polarity of the sync signal is positive.
NEG: The polarity of the sync signal is negative.
SonG: Sync on green signal
–: No sync signal is input.

ROM VER.

Indicates the ROM version number of the projector.

OPERATION TIMER

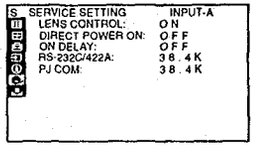
Indicates the total number of hours for which the projector has been operated.

LAMP TIMER 1–4

Indicates the total number of hours for which the lamp currently used has been operated.
The number of hours of the lamp that has burnt out is indicated in red.

The SERVICE SETTING Menu

The SERVICE SETTING menu is for the settings to be adjusted before operation.



Operation

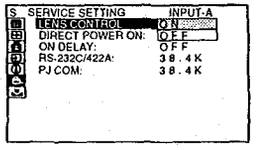
1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Change the setting
Press the ↑ or ↓ key to change the setting.

3. Restore the original screen
Press the ← or the ENTER key.
The original screen is restored.

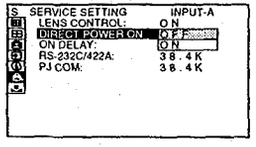
LENS CONTROL

When set to OFF, the SHIFT, FOCUS and ZOOM keys on the Remote Commander and the control panel do not function. To activate the keys, set to ON.



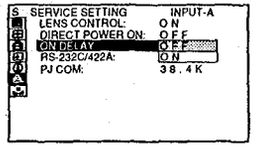
DIRECT POWER ON

Set to ON when you want to turn on the projector by simply plugging in the AC power cord.



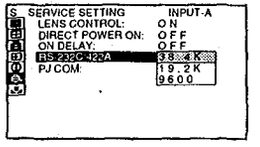
ON DELAY

When connecting multiple projectors, set to ON to turn on the projectors sequentially one by one. The delay time depends on the device index number on each projector.



RS-232C/422A

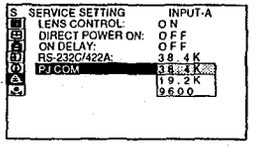
Sets the data transmission rate of the RS-232C/422A connector.



Note
Set the same data transmission rate for all the projectors and computers.

PJ COM

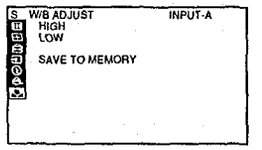
Sets the data transmission rate of the PJ COM connector.



Note
Set the data transmission rate of all equipment connected via the PJ COM connector to the same rate.

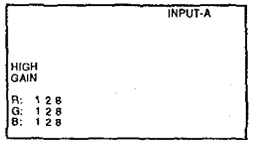
The W/B ADJUST Menu

The W/B ADJUST menu sets the values of the COLOR TEMP in the PICTURE CTRL menu.



Operation

1. Select the COLOR TEMP item to be set
Use the ↑ or ↓ key to select HIGH or LOW, then press the → or ENTER key.
The projector enters into GAIN/BIAS adjustment mode.



2. Select the item to be adjusted
Use the ↓ key to select the item.
Each time the ↓ key is pressed, the selected color item appears in the following order.

R (GAIN) → G (GAIN) → B (GAIN)
↑ ↓
B (BIAS) ← G (BIAS) ← R (BIAS)

3. Adjust an item
To increase the number, press the → key.
To decrease the number, press the ← key.

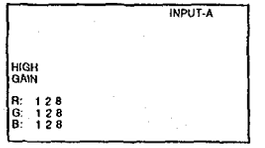
4. Restore the original screen
Press the ENTER key.
The original screen is restored.

To cancel the adjusted values

Turn off the projector. The saved data in the memory will be retrieved when the projector is turned on again.

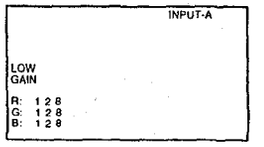
HIGH

Changes the color temperature of the COLOR TEMP's HIGH setting value in the PICTURE CONTROL menu.



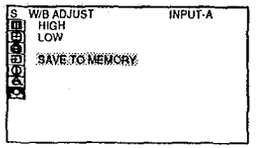
LOW

Changes the color temperature of the COLOR TEMP's LOW setting value in the PICTURE CONTROL menu.



SAVE TO MEMORY

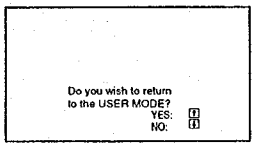
Saves the settings of HIGH and LOW levels of COLOR TEMP if you select SAVE TO MEMORY with the ↑ or ↓ key and press the ENTER key.



Restoring the USER MODE

Normally, once you turn off the power using the STANDBY key on the Remote Commander after making adjustments, the USER MODE is automatically restored when you turn on the power again.
To restore the USER MODE before turning off the power, follow the steps below.

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following screen appears.



2 Press the ↑ key.
The projector goes back into the USER MODE.
You cannot display the SERVICE MODE menus.

Replacing the Lamp

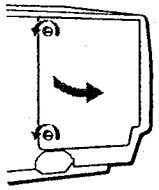
When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q2000 projector lamp (not supplied).

Note
Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

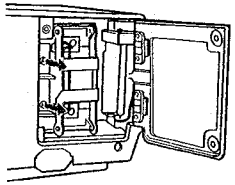
To remove the lamp unit

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

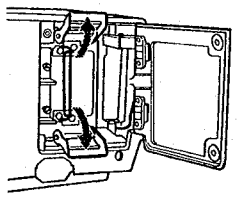
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



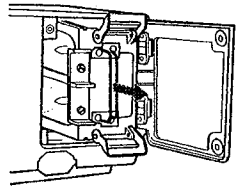
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

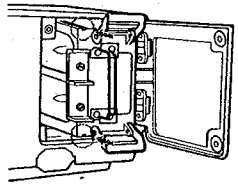


5 Pull out the lamp by holding the handles.

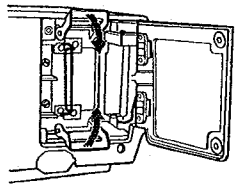


To install a new lamp

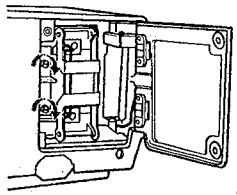
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



2 Push the lamp completely until it clicks. Fold down the levers to fix the lamp to the projector.

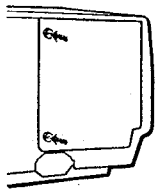


3 Tighten the two screws to secure the lamp.



(continued)

4 Replace the lamp cover and push to tighten the two screws to fix the cover.



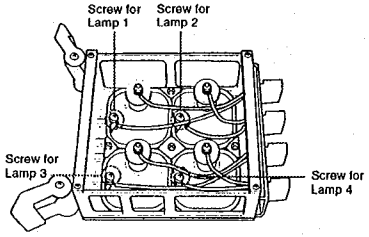
To replace a burnt lamp

If a lamp has burnt out, the FAIL LAMP indicator of that lamp lights. Check the number of the burnt lamp, and replace it with a new LMP-S2000 projector lamp (not supplied).

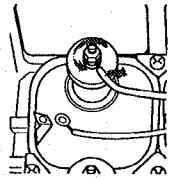
Notes

- When replacing two or more lamps, replace the lamps one after another paying attention to the connections.
- When replacing a lamp, be careful not to overtighten the screws.

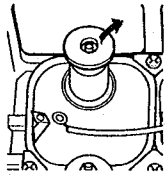
1 Remove the screw for the lamp to be replaced.
Example: To replace Lamp 1



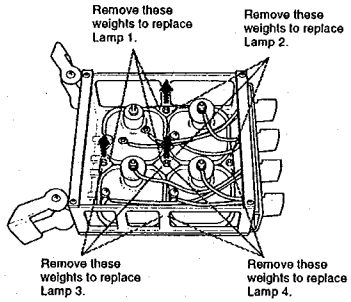
2 Remove the hexagonal nut to disconnect the cable.



3 Remove the lamp heat sink.

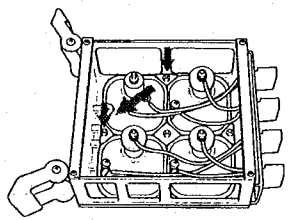


4 Remove the lamp weights.
The positions of the weights to be removed vary depending on Lamp 1–4.



5 Remove the lamp, and install a new lamp.

6 Secure the lamp by performing the steps above in reverse order.
Tighten the screw for the lamp while pressing the lamp against the lower left corner.



To reset the number of operated hours of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

```
TIMER RESET?
LAMP: 1
```

3 Press the ↑ or ↓ key to display 1, 2, 3, 4 or ALL.
To reset the number of operated hours for Lamp 1, 2, 3 or 4, respectively, display 1, 2, 3 or 4.
To reset the number of operated hours for all the lamps at the same time, display ALL.

```
TIMER RESET?
LAMP: ALL
```

4 Press the ENTER key.

```
TIMER RESET??
LAMP: ALL
```

5 Press the ENTER key again.
The projector will exit the reset mode if ALL was selected in step 3.
If you selected 1, 2, 3 or 4, the display returns to that in step 3. Go to step 6.

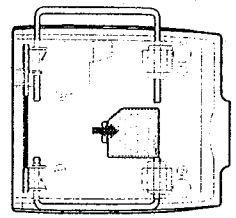
6 To exit the reset mode, display EXIT and press the ENTER key.
If you want to reset the number of operated hours of other lamps, repeat steps 3 to 6.

Cleaning the Air Filter

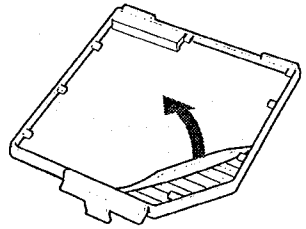
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about 30 seconds before turning on the power *(see page 12 (GB))*.
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 65 (GB))*.
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 38 (GB) – 43 (GB))*.
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 57 (GB))*.
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 12 (GB))*.
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
When inputting sound through the INPUT A/B/C connector, sound comes through one channel only.	Monaural sound is being input through the INPUT A/B/C connector.	Input stereo sound.
The picture from INPUT A/B/C connector is colored strange.	Setting for INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-A in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-B in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-C in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT C.	Setting for INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 55 (GB))*.
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see pages 50 and 51 (GB))*.
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu correctly to match the color system of the input signal *(see page 51 (GB))*.
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 64 (GB))*.
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 50 (GB))*.
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 48 (GB))*.
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 20 (GB))*.

Symptom	Cause	Remedy
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 19 (GB))*.
	The remote control cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 56 (GB))*.
	You have selected a wrong index number.	Select the correct index number *(see pages 45 (GB) and 56 (GB))*.
	You have set the index number to "00".	Select the correct index number *(see page 45 (GB))*.
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 56 (GB))*.
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 63 (GB) and 65 (GB))*.
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 64 (GB))*.
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-B correctly.
Please check INPUT-C in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-C in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-C correctly.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel	1.8-inch XGA LCD panel, 2,359,296 pixels (786,432 pixels × 3)
Lens	Option
Light output	ANSI lumen[1] 2,400 lm
Lamp	120 W UHP × 4

Electrical characteristics

Color system	NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M system, switched automatically
Resolution	600 horizontal TV lines (video input) 1024 × 768 dots (RGB input)
Acceptable computer signal	
	fH: 15 to 94 kHz fV: 40 to 120 Hz
Speakers	Max. 5 W + 5 W, 90 × 50 mm (3 5/8 × 2 inches), stereo

Input/Output

CONTROL S IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA
OUT: Stereo minijack, 5 Vp-p

REMOTE RS-232C/422A
D-sub 9-pin (female)
(For details, see "Pin assignment" on page 70 (GB).)

PJ COM IN: D-sub 9-pin (female)
OUT: D-sub 9-pin (female)
(For details, see "Pin assignment" on page 70 (GB).)

TRIG Minijack
Power on: DC 12 V, output impedance: 4.7 kilohms
Power off: 0 V

S VIDEO (priority to Y IN/C IN) (only for VPL-X2000U/X2000M)
IN: Mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
OUT: Loop-through mini DIN 4-pin type (male)
Loop-through output from the S VIDEO IN connector
Y IN: BNC type
1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C IN: BNC type
Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated

VIDEO (only for VPL-X2000U/X2000M)
IN: BNC type
Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
OUT: Loop-through BNC type
Loop-through output from the VIDEO IN connector

AUDIO IN (only for VPL-X2000U/X2000M)
Phono type (stereo)
500 mVrms, impedance more than 47 kilohms

INPUT A Analog RGB/component: BNC type
R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative
Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative
VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative
AUDIO IN: Phono type (stereo)
500 m Vrms, impedance more than 47 kilohms
HDTV (Y/PB/PR): BNC type
Y: 1 Vp-p ± 2dB positive, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms
HDTV (GBR): BNC type
G with sync: 1 Vp-p ± 2 dB, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
B/R: 0.7 Vp-p ± 2dB positive, 75 ohms

AUDIO OUT (variable out)
Phono type, Max. 1 Vrms
When input is 500 mVrms: impedance less than 5 kilohms

Safety regulations
VPL-X2000U: UL1950, c-UL (CSA No. 950), FCC Class A, IC Class A
VPL-X2000E/X2000M: EN60 950 (TÜV), CE, C-Tick

General

Dimensions	562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass	Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements	
	VPL-X2000U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1] VPL-X2000E/X2000M: AC 220 to 240 V, 50/60 Hz
Power consumption	
	Approx. 770 W (Standby mode: 15W for VPL-X2000U/X2000M, 20 W for VPL-X2000E)
Heat dissipation	2628 BTU
Operating temperature	
	0°C to 40°C (32°F to 104°F)
Operating humidity	
	35% to 85% (no condensation)
Storage temperature	
	–20°C to +60°C (–4°F to +140°F)
Storage humidity	10% to 90%
Supplied Accessories	
	Remote Commander RM-PJ1001 (1) Size AA (R6) batteries (3) Remote commander cable (stereo) (15 m) (1) AC power cord (1) Terminator for the PJ COM connector (1) Lens ring (1) Operating Instructions (1) Installation Manual for Dealers (1) Warranty (only for VPL-X2000U) (1)

Design and specifications are subject to change without notice.

Optional accessories

Projector Lamp LMP-Q2000 (for replacement)
Projector Lamp LMP-S2000 (for replacement)
Interface Board
IFB-12A (Analog RGB/component/HDTV/ composite video/S video input with 5BNC type connectors)
IFB-20 (Analog RGB input with D-sub 9-pin type connector)
IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
IFB-30 (Digital RGB input with D-sub 9-pin type connector)
IFB-50 (serial digital video input/output with BNC type connector)
IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
IFB-X2000E (Composite video input with phono jacks/S video input with mini DIN 4-pin type connector) (only for VPL-X2000E)
Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable
SIC-10/20A/20C/21/22/23/24/24A/25/26/26A/30/31/M1/M5/M15/M25/M50
9-pin remote cable (for PJ COM)
RCC-5G/10G/30G

(continued)

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

1) UL listed for 120 V operation.

Specifications

Monitor Cable
- SMF-400 (HD D-sub 15-pin (female) ⟷ 5BNC (female))
- SMF-401 (HD D-sub 15-pin (female) ⟷ HD D-sub 15-pin (female))

Signal Adapter
- ADP-10 (D-sub 9-pin ⟷ HD D-sub 15-pin (for SIC Cable))
- ADP-20 (Macintosh ⟷ VGA)

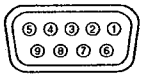
Remote Commander RM-PJ3000S
Remote Control Receiver RM-PJ10
Projection Lens
- Fixed short focus lens VPLL-2009
- Fixed short focus lens VPLL-2014
- 1.3-times zoom standard focus lens VPLL-Z2019
- 1.6-times zoom long focus lens VPLL-Z2025
- 1.5-times zoom long focus lens VPLL-Z2039
- Fixed long focus lens VPLL-2075

Projector Stand SU-PJ2000 (for stacking)
Projector Suspension Support PSS-2000
Screens
- VPS-80FH (80-inch, flat)
- VPS-100FH (100-inch, flat)
- VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

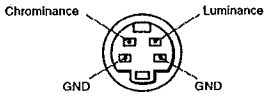
RS-422A

1	GND	Ground	6	GND	Ground
2	$\overline{TX}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{RX}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)

1	GND	Ground	6	GND	Ground
2	$\overline{BUSY}$	Busy	7	$\overline{BUSY}$	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{TX/RX}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

S VIDEO connector (mini DIN 4-pin)



Index

A

Adjusters 11 (GB)
Adjusting
- picture 50 (GB)
- picture size/shift 52 (GB)
- zoom 48 (GB)

Air filter 65 (GB)
ASPECT 53 (GB)
AUDIO MUTING 12 (GB)

B

Battery
- Installation 19 (GB)
- notes 19 (GB)

BLANKING 53 (GB)
BNC connector 38 (GB)
BRIGHT 50 (GB)

C

Carrying handles 11 (GB)
Caution messages 67 (GB)
COLOR 50 (GB)
COLOR SYS (System) 51 (GB)
COLOR TEMP 51 (GB)
Connections
- active speakers 38 (GB)
- BNC connector 38 (GB)
- computer 38 (GB)
- multiple projectors 42 (GB)
- 15k RGB/component equipment 39 (GB)
- Remote Commander 19 (GB)
- switcher 40 (GB)
- VCR 38 (GB)

CONTRAST 50 (GB)
Cut off
- the picture 12 (GB)
- the sound 12 (GB)

D, E

D. (Dynamic) PICTURE 50 (GB)
Device index 45 (GB), 47 (GB), 56 (GB)
DIRECT POWER ON 60 (GB)
DOT PHASE 52 (GB)
DRC (Digital Reality Creation) 51 (GB)

F

fH (Horizontal frequency) 59 (GB)
FOCUS 48 (GB)
fV (Vertical frequency) 59 (GB)

G

GAMMA MODE 51 (GB)
Group index 45 (GB), 47 (GB), 56 (GB)

H

Handle lever 11 (GB)
H FILTER 53 (GB)
HIGH 61 (GB)
HUE 50 (GB)

I, J, K

INPUT-A 57 (GB)
INPUT-B 57 (GB)
INPUT-C 57 (GB)
INPUT MEMORY No. 54 (GB)
INPUT SETTING menu 52 (GB)
Input signal selection 13 (GB)
Installation examples
- on a ceiling 30 (GB)
- on a floor 26 (GB), 34 (GB)
- triple-stacking 36 (GB)
- twin-stacking 34 (GB)

L

Lamp replacement 63 (GB)
LAMP TIMER 59 (GB)
LANGUAGE 55 (GB)
LENS CONTROL 60 (GB)
Location and function of controls
- control panel 12 (GB)
- front 10 (GB)
- rear 14 (GB)
- Remote Commander 16 (GB)

LOW 61 (GB)

M, N

Menu
- Clearing the menu display 49 (GB)
- INPUT SETTING menu 52 (GB)
- PICTURE CTRL menu 50 (GB)
- SET SETTING menu 55 (GB)
- SIGNAL SELECT menu 57 (GB)
- Using the menu 49 (GB)

Moisture condensation 20 (GB)

O

ON DELAY 60 (GB)
On-screen messages 67 (GB)
OPERATION TIMER 59 (GB)
Optional accessories 69 (GB)

P, Q

PC-3000 Signal Interface Switcher 40 (GB)
PIC MUTING 12 (GB)
PICTURE CTRL menu 50 (GB)
PICTURE SHIFT 48 (GB)
Pin assignment 70 (GB)
PJ COM 60 (GB)
PJ COM connector 15 (GB)
Polarity 25 (GB)
- Changing the polarity according to the installtion condition 25 (GB)

Power
- turn on 12 (GB)
- turn off 12 (GB)

POWER SAVING 56 (GB)
Precautions 4 (GB)
Precautions on installation 20 (GB)
PSS-2000 Projector Suspension Support 30 (GB)

R

Remote Commander
- battery installation 19 (GB)
- connecting to the projector 19 (GB)
- location and function of controls 16 (GB)
- notes 19 (GB)

Remote control detector
- front 10 (GB)
- rear 13 (GB)

Reset
- resetting the item 49 (GB)

Restoring the USER MODE 62 (GB)
RS-232C/422A 60 (GB)
RS-232C/422A connector 15 (GB)

(continued)

S

SAVE TO MEMORY 61 (GB)
SCAN CONV 52 (GB)
Screen size 21 (GB)
SERVICE mode
  entering into the SERVICE mode 58 (GB)
SERVICE MODE menu
  INFORMATION menu 59 (GB)
  SERVICE SETTING menu 60 (GB)
  W/B ADJUST menu 61 (GB)
SET SETTING menu 55 (GB)
SHARP 50 (GB)
SHIFT 52 (GB)
SIGNAL SELECT menu 57 (GB)
SIRCS RECEIVER 56 (GB)
SIZE 52 (GB)
SPEAKER 55 (GB)
Specifications 68 (GB)
STATUS (on-screen display) 55 (GB)
Supplied accessories 69 (GB)
SYNC 59 (GB)

T, U, V

Type of screen 21 (GB)
Troubleshooting 66 (GB)

W, X, Y

W/B ADJUST 61 (GB)

Z

ZOOM 48 (GB)

SONY

3-865-115-11 (1)

Interface Board

Operating Instructions

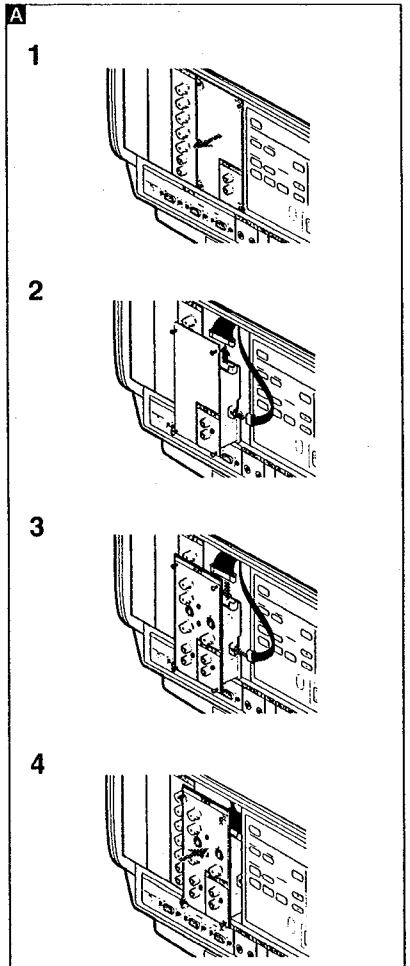
IFB-X2000E

Sony Corporation © 1998 Printed in Japan

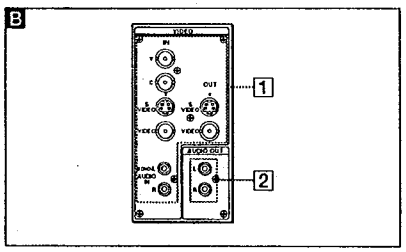
Sony online http://www.world.sony.com/

Printed on recycled paper

A



B



English

The IFB-X2000E interface board is designed to be mounted on Sony VPL-X2000E LCD data projectors so that composite video or S video (Y/C) signals and audio signals from video equipment can be input/output.

Mounting the IFB-X2000E A

Before installing the board, be sure to turn off the power of the projector and disconnect the projector power cable from the wall outlet.

1 **Pull out the AUDIO OUT plate on the rear of the projector by loosening the four screws with a screwdriver.**
2 **Disconnect the 12-pin and 4-pin cable connectors from the AUDIO OUT plate to remove the plate.**
3 **Insert the two connectors into the connector plugs on the interface board.**
4 **Insert the interface board into the rear panel of the projector.**

Caution

Make sure that the wire is not caught between the opening of the projector and the board.

5 **Tighten the four screws on the interface board.**

Location and Function of Parts B

[1] **VIDEO connectors**

Y IN/C IN (BNC-type): Connect to the Y and C video outputs of the video equipment.
S VIDEO IN (mini DIN 4-pin): Connects to the Y/C video output of the video equipment.
S VIDEO OUT (mini DIN 4-pin): Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.
VIDEO IN (BNC type): Connects to the composite video output connector of the video equipment.
VIDEO OUT (BNC type): Used as loop-through output of the VIDEO IN connector.
AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment, such as a VCR, etc. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note

If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

[2] **AUDIO OUT L/R jacks (phono type)**

Connect to external active speakers. The volume of the speakers can be controlled by the VOLUME keys of the projector.

Specifications

S VIDEO (priority to Y IN/C IN)
IN: Mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
OUT: Loop-through mini DIN 4-pin type (male), Loop-through output from the S VIDEO IN connector
Y IN: BNC type, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C IN: BNC type, Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated, Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
VIDEO
IN: BNC type, Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
OUT: Loop-through BNC type, Loop-through output from the VIDEO IN connector
AUDIO IN
Phono type (stereo), 500 mVrms, impedance more than 47 kilohms
AUDIO OUT (variable out)
Phono type, Max. 1 Vrms, When input is 500 mVrms: impedance less than 5 kilohms

Design and specifications are subject to change without notice.

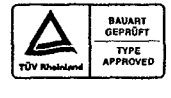
SONY

3-865-453-01(1)

Projector Suspension Support

Installation manual for Dealers

Operating Instructions
Before operating the unit, please read this manual thoroughly and retain it for future reference.



PSS-2000

© 1998 by Sony Corporation

English

Maximum load: 50 kg (110 lb 6 oz)

The PSS-2000 suspension support is designed for use with Sony LCD Data projectors the VPL-X2000U/E/M.

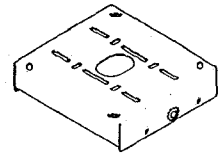
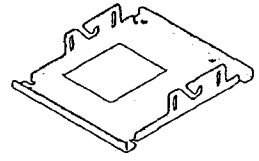
Caution

- For installation, consult with qualifies Sony personnel.
- The ceiling should be capable of supporting a weight of at least 250 kg (551 lb 2 oz); if not, the ceiling must be reinforced.
- When you attach the bracket directly to the ceiling, use commercially available M10 bolts with nuts and washers, depending on the ceiling. Use of other bolts, nuts, and washers other than M10 may present a danger of falling.
- Be sure to assemble and attach the bracket in the order indicated; otherwise the projector may fall, resulting in grievous bodily injury or even death.
- The PSS-2000 suspension support is designed for use with Sony LCD data projector. Never use it for another purpose.

Table of contents

Parts List 6
Installation Diagram 8
Attaching to the Ceiling 12
Installation Examples 16
Specifications 22

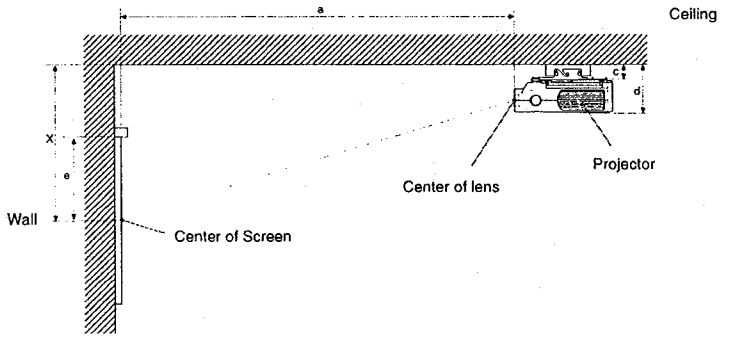
Parts List

(a)	Base box (1)	
(b)	Suspension bracket (1)	
(c)	Bolt M8 × 20 (2) Parts number 4-047-766-01	
(d)	Bolt M6 × 12 (4) Parts number 4-056-754-01	
(e)	Washer M8 (2) Parts number 4-047-748-01	
(f)	Washer M6 (4) Parts number 4-056-755-01	

(g)	Spacer (2) Parts number 4-056-753-01	
(h)	Bolt M10 × 25 (4) Parts number 4-068-372-01	
(i)	Washer M10 (4) Parts number 4-068-371-01	
(j)	Spring washer M10 (4) Parts number 4-068-373-01	

Installation Diagram

For details of screen size and installation measurement for projection, refer to the Operating Manual or Installation Manual for Dealers of the projector.



a: Distance between the center of lens and the screen

c: Distance between the ceiling and the mounting surface of the suspension bracket: 104.7 mm (4 1/8 inches)

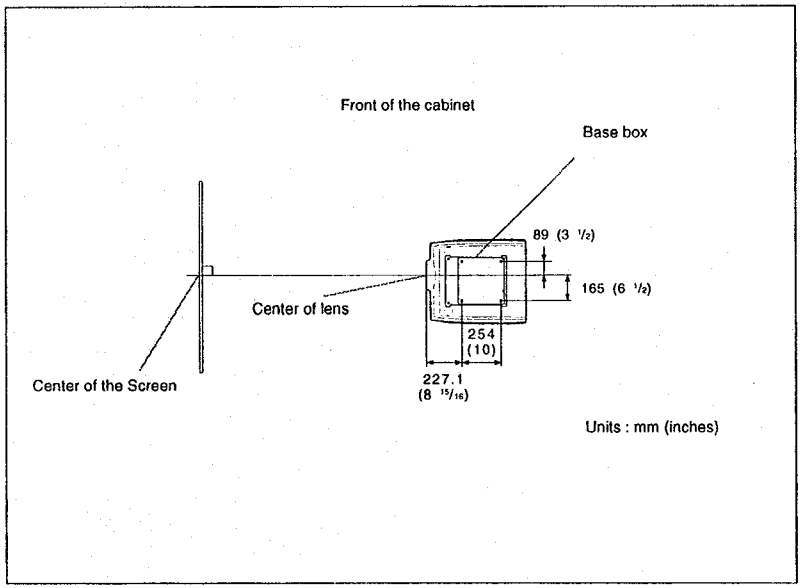
d: Distance between the top of the projector and the ceiling: 330.3 mm (13 inches)

e: Distance from the top edge of available projected picture to the center of screen

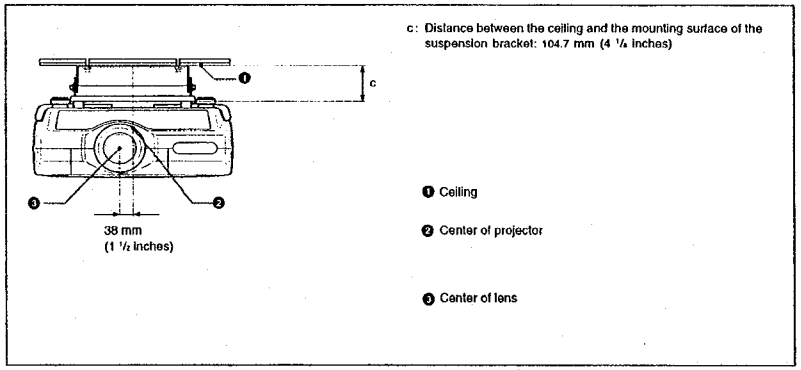
x: Distance between the ceilig and the center of the screen

Installation Diagram

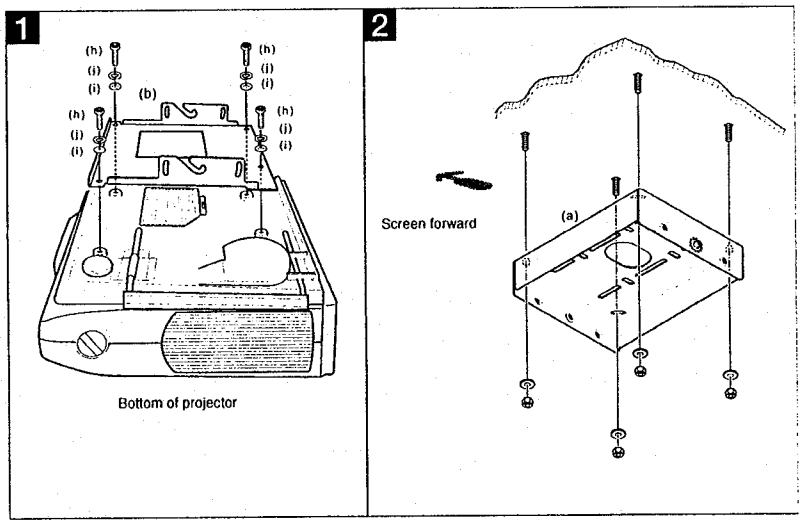
Align the center of the lens with the center of the screen.



The lens is offset 38 mm (1 1/2 inches) to the left from the center of the projector. When mounting, take care to align the center of the lens with the center of the screen; not the center of the projector.



Attaching to the Ceiling



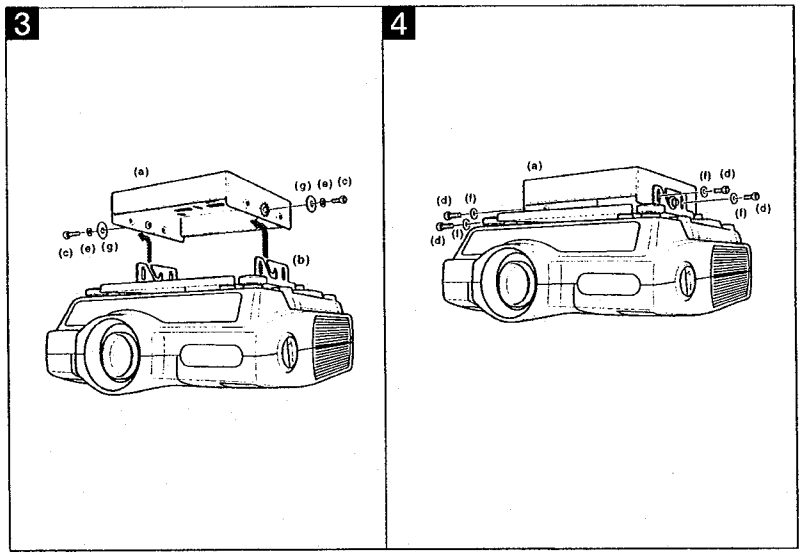
English

1 Turn the projector upside down and attach the suspension bracket (b).
Use M10 × 25 bolts (h), M10 spring washers (j) and M10 washers (i).

Note
When attaching the bracket, be careful not to overtighten the bolts.

2 Attach the base box (a) to the ceiling.
Use M10 bolts, nuts and washers (not supplied).

Attaching to the ceiling



English

3 Tighten loosely two bolts M8 × 20 (c), washers (e) and spacers (g) to the base box hinge pins (a). Hang the projector with the suspension bracket (b) on the base box hinge pins (two bolts M8 × 20 (c)).

4 Attach four bolts M6 × 12 (d) and washers M6 (f), tighten all bolts M6 × 12 (d) (angle holding) and two bolts M8 × 20 (c) (attached in step 3) to secure the projector to the screen angle.

5 After having secured the projector, adjust the position of the screen and projected image using SHIFT function of the projector.

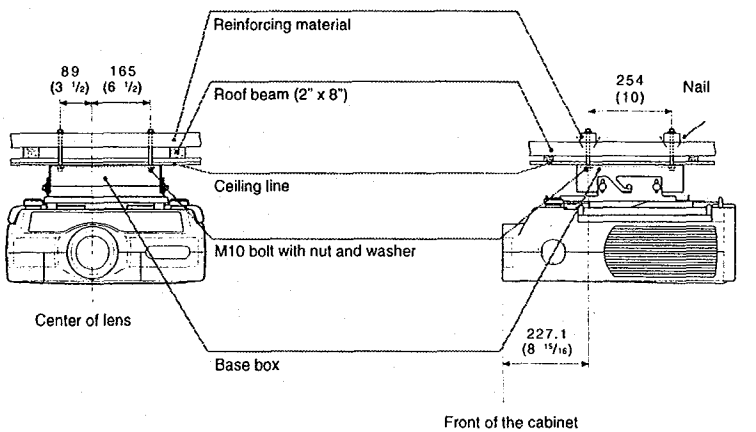
Installation Examples

The following illustrations show the projector suspension support attached to with the ceiling. Installation is different depending on the material of ceiling.

Caution

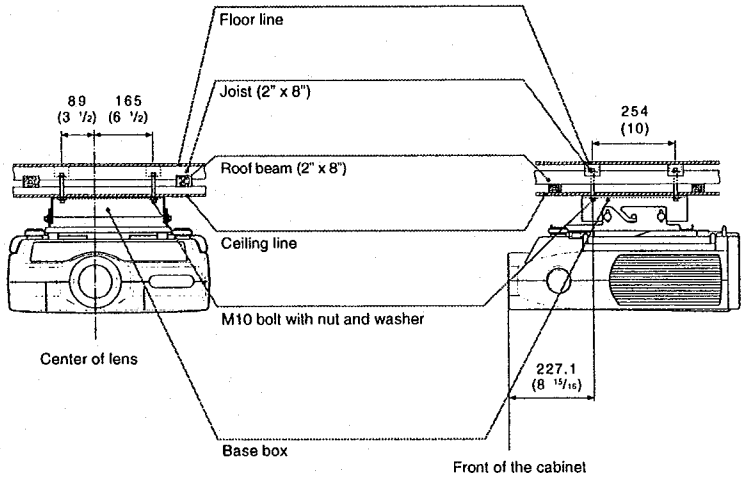
Before installation, check that the maximum ceiling loading is in excess of 250 kg (551 lb 2 oz).

For-one-story house or uppermost floor



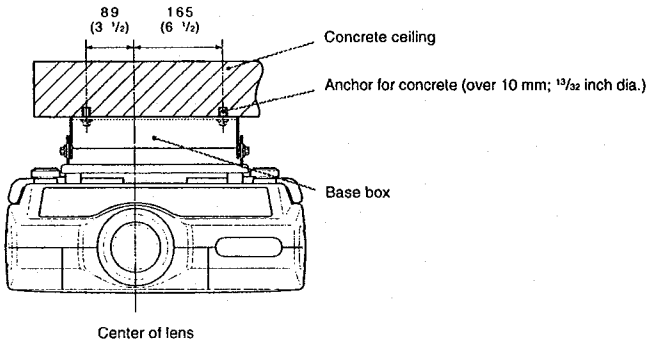
Units : mm (inches)

Installation Examples

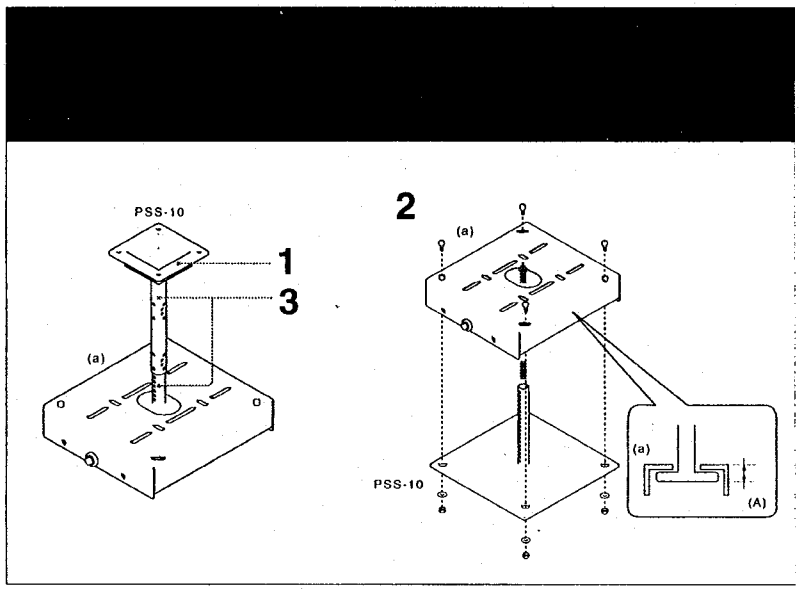


Units : mm (inches)

Place bolts at least 100 mm (4 inches) away from wall.



Installation Examples



English

1 Attach the upper part of the PSS-10 to the ceiling. (See the PSS-10 installation manual for details.)

2 Insert the lower part of the PSS-10 into the hole in the base box and secure them using the M10 bolts, M10 washers, and M10 nuts supplied with the PSS-10.

3 Adjust the length and secure the upper and lower parts of the PSS-10. (See the PSS-10 installation manual for details.)

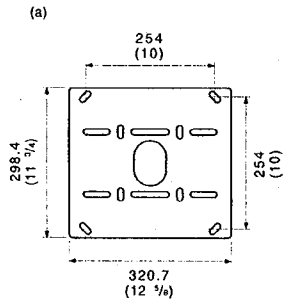
Note

The distance between the projector and the ceiling will be decreased by 5.5 mm (7/32 inch) (A) from the installation measurements of the PSS-10 when the PSS-2000 and the PSS-10 are used together.

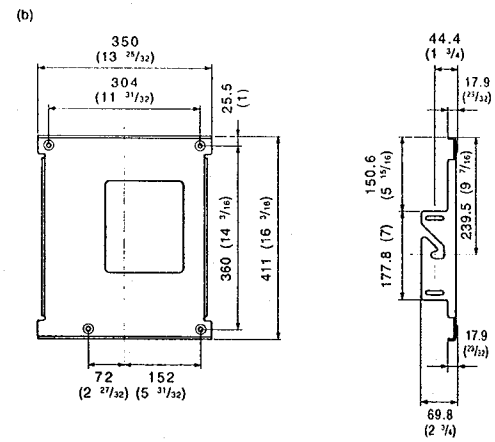
Specifications

Dimensions

Base box



Suspension bracket



Units : mm (inches)

1-78

[redacted]

Mass : Approx. 5.5 kg (12 lb 2 oz)
Loading: Maximum 50 kg (110 lb 4 oz)

Design and specifications are subject to change without notice.

SONY

3-865-454-01(1)

Projector Stand

Installation manual

SU-PJ2000

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Table of contents

English

Overview 6
Parts List 8
Installation Diagram 9
Installation 10
Aligning projectors 20
Specifications 44

Overview

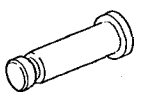
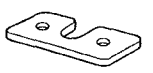
English

Maximum load of one projector stand: Up to 50 kg (110 lb 4 oz) per projector

The SU-PJ2000 projector stand is designed for use with Sony LCD data projector VPL-X2000U/E/M. You can stack up to three stands.

> **Caution**
> You can attach only one projector to one projector stand.

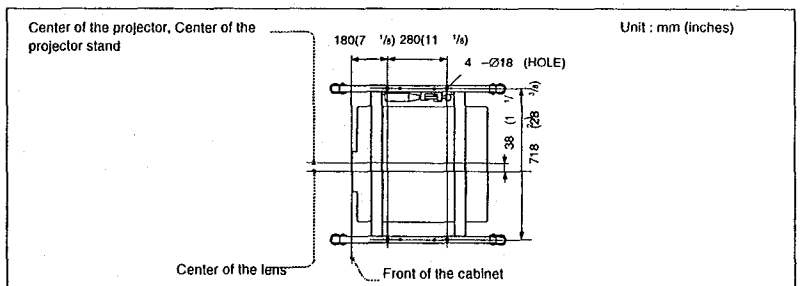
Parts List

		Parts number	
(a)	Screw M6 × 14 (8)	4-068-381-01	
(b)	Screw M10 × 20 (4)	4-068-379-01	
(c)	Shaft stack (4)	4-068-383-01	
(d)	Bracket stack (4)	4-068-382-01	
(e)	Flat washer M10 (4)	4-068-378-01	
(f)	Spring washer M10 (4)	4-068-380-01	

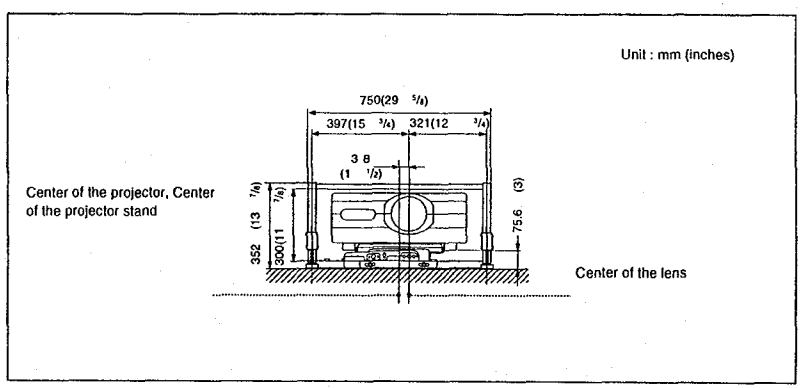
Installation Diagram

For details of screen size and installation measurement for projection, refer to the Installation Manual of the projector.

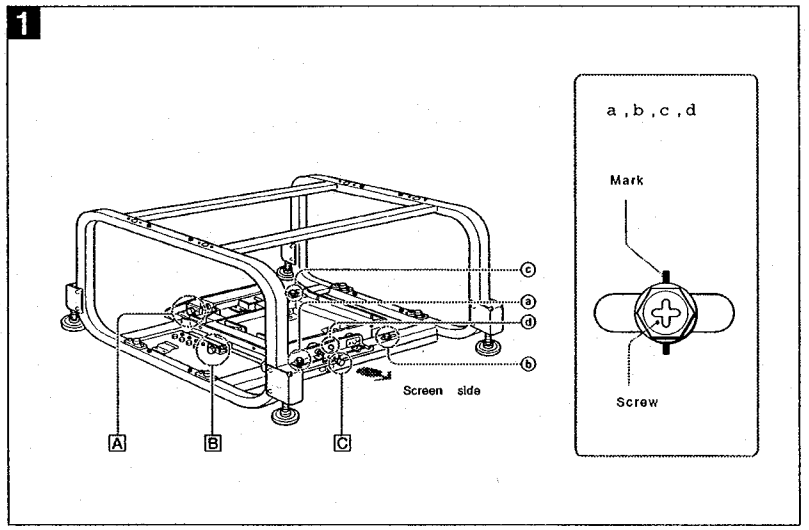
Top view



Front view



Installation



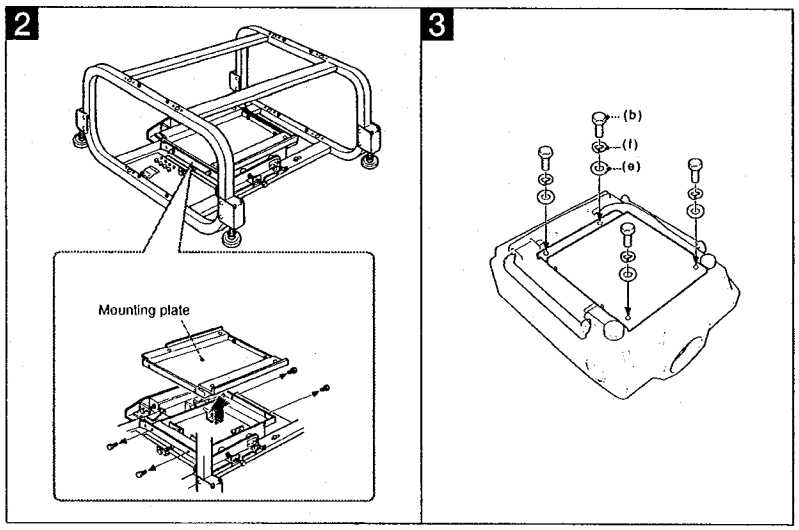
English

Attaching the projector to the projector stand

1 Loosen the screws a , b , c , d , and be sure that the each screw is positioned to the mark line.
To move the screws to the correct position, turn the knobs A , B , C .

To move screw a : turn the knob A .
To move screws b , c : turn the knob B .
To move screw d : turn the knob C .

(Continued)

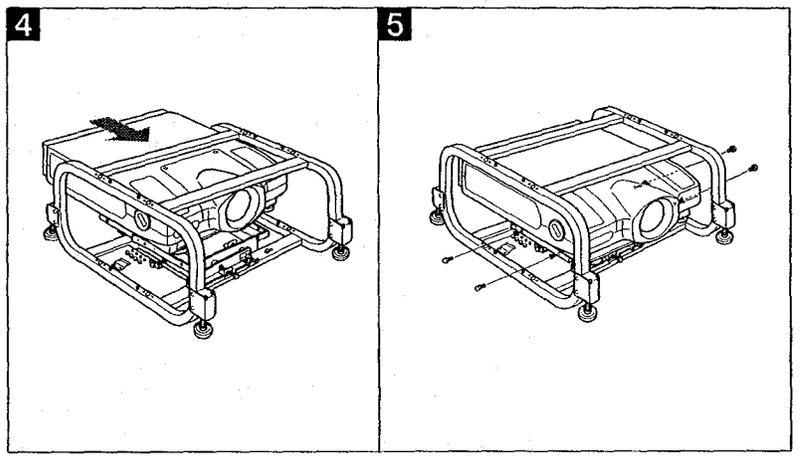


English

2 Remove the mounting plate from the projector stand.
Remove the screws (4) with the Phillips head screwdriver.

3 Turn over the projector, then turn over the mounting plate and attach it to the projector aligning the projections of the mounting plate with the holes of the projector.
Fix the plate with the supplied screw M10 × 20 (b) (4), flat washer M10 (e) (4) and spring washer M10 (f) (4) by using the wrench attached to the stand.

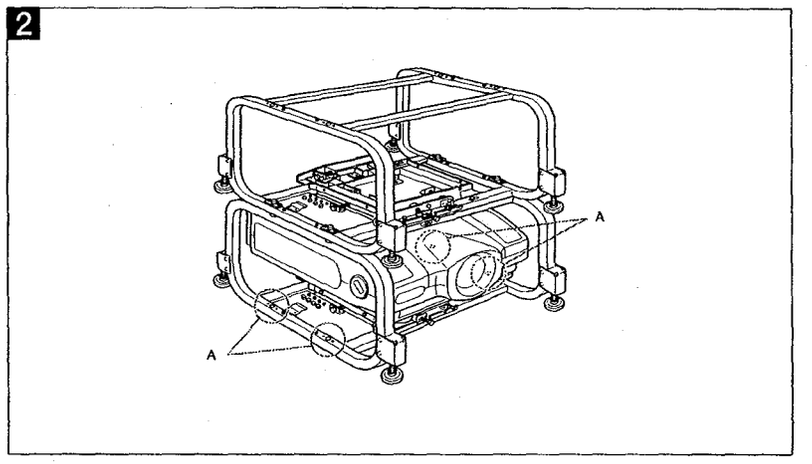
(Continued)



English

4 Re-position the projector with the mounting plate attached so that it faces in the original direction. Then, slide the projector into the tray of the projector stand from the rear, using the guides.

5 Slide the projector in until the mounting plate stops (foremost position).
Use the screws (4) removed in step **2**.



English

Stacking the projector stand

You can stack up to three SU-PJ2000 projector stands.

1 Put the 1st projector stand with the projector at the place they are to be used.
Place the stand on a flat surface facing the screen.

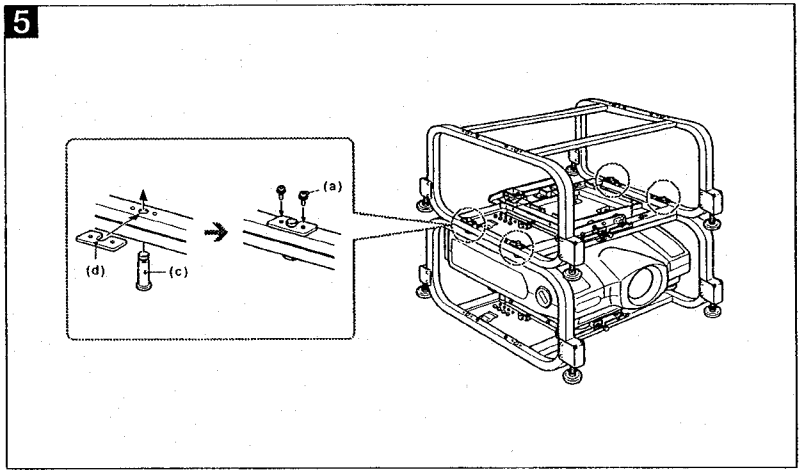
2 Display the HATCH pattern of the projector, adjust the horizontal and vertical positioning and fix the A (4) with the commercially available bolts (M14) and washers (M14).

3 Follow to the steps **1** to **3** of "Attaching the projector to the projector stand" (page 10) for 2nd and 3rd projectors.

4 Stack the 2nd projector stand on the 1st stand.

(Continued)

5



English

5 Fix the 1st and 2nd stands.
Insert the shaft stack (c) from the under side and fix the projector stand with the bracket stack (d). Fix the bracket stack with the supplied screws M6 × 14 (a) (8).

6 **Triple stack:** Stack the 3rd projector stand on the 2nd stand and fix them as step **5**.

7 Attach the projectors to the 2nd and 3rd projector stands.

Aligning projectors

English

Notes

- When adjusting with the Remote Commander, set a different index number on each projector, and designate the projector to be operated with the Remote Commander.
- For details on the following operations of the projector, see the Installation Manual for Dealers of the VPL-X2000U/E/M.
  -Setting the index number.
  -Entering into the service mode.
  -Adjusting the picture.
  -Adjusting the focus.
- Complete the adjustment on the 1st projector as the pictures of the 2nd and 3rd projectors are aligned with the picture of the 1st projector.

1 Press the ON key of the Remote Commander or the control panel for all projectors.
The ON indicator lights in green.

2 Enter into the SERVICE MODE for all projectors.

3 Put the lens cap on the 2nd and 3rd projectors or mute the picture by pressing the MUTING key.

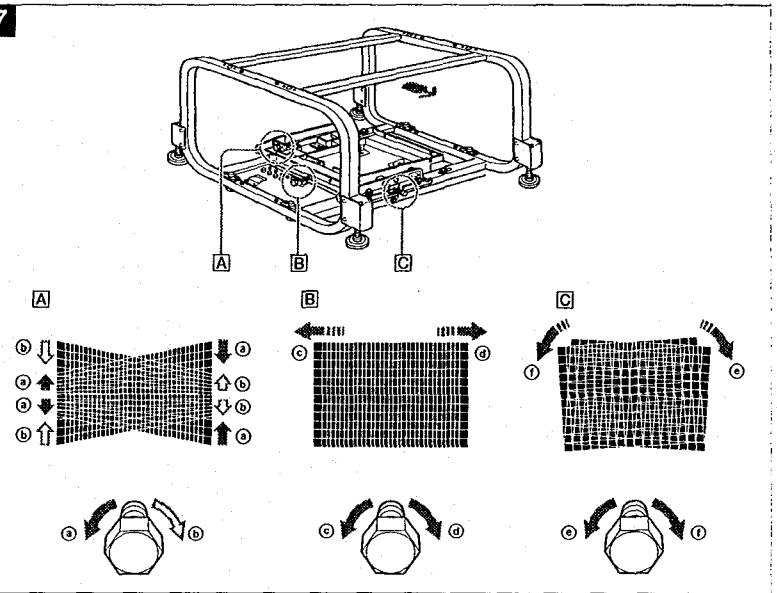
4 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern.

5 Adjust the focus with the FOCUS + or – key on the Remote Commander or the control panel.

6 Adjust the screen size using the ZOOM + or – key on the Remote Commander or the control panel, and adjust the vertical positioning using the SHIFT + or – key.

(Continued to page 24)

7



English

7 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 26)

English

8 After completing the adjustment of the 1st projector, tighten the screws (4) of the 1st projector stand.

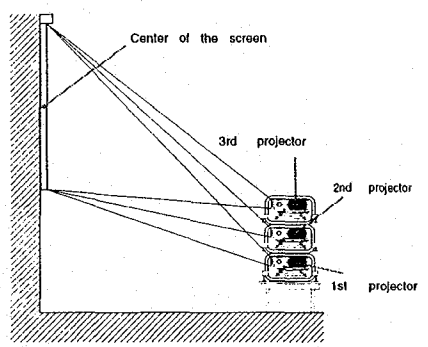
Notes

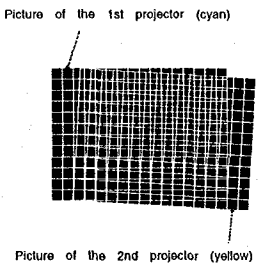
- If the HATCH pattern is not displayed properly on the screen, or is out of focus after the adjustments above, repeat steps **5** and **6** to adjust finely.
- Be sure not to readjust the 1st projector after completing the adjustments to it. When aligning all pictures, adjust the 2nd or 3rd projector to align its picture with that of the 1st projector.

(Continued to page 28)

9

Wall





English

9 Remove the lens cap on the 2nd projector or release the muting by pressing the MUTING key.

10 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern in cyan.

11 Press the PATTERN key for the 2nd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

(Continued to page 30)

English

Align the picture of the 2nd projector with that of the 1st projector for the following adjustments. When both pictures are aligned correctly, the HATCH pattern is displayed in white.

12 Adjust the focus for the 2nd projector.

13 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

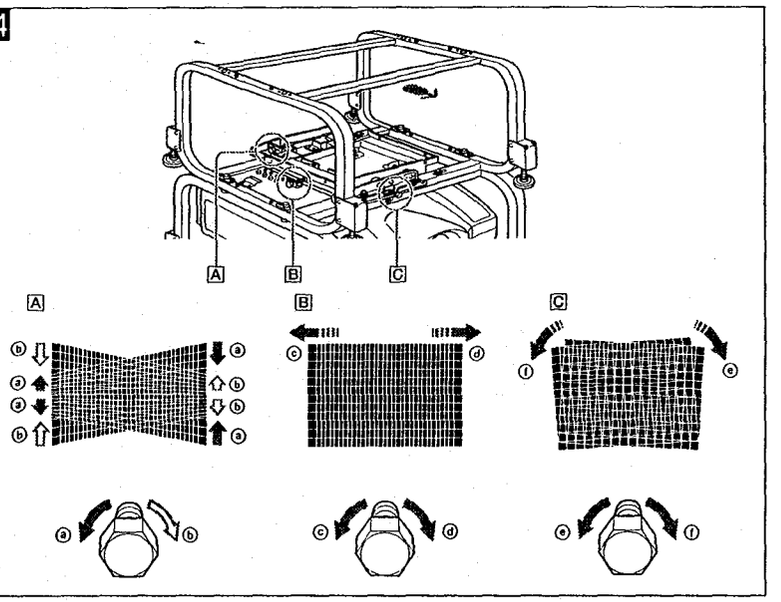
Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

Notes

- Be sure not to readjust the focus after aligning both pictures.
- Be sure not to readjust the 1st projector while adjusting the 2nd projector.

(Continued to page 34)

14



English

14 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 36)

English

15 **Triple stack:** Remove the lens cap from the 3rd projector or release the muting by pressing the MUTING key. Put the lens cap on the 2nd projector or mute the picture by pressing the MUTING key. Then press the PATTERN key for 3rd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

16 Adjust the focus for 3rd projector aligning the picture of the 3rd projector with that of the 1st projector.

17 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

18 Adjust the picture precisely as follows. (See page 34.)

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 40)

Aligning projectors

English

19 After completing the adjustment, project the input signals from the 2nd and 3rd projectors, be sure to align the pictures. After that, tighten the screws (each 4).

20 Press the PATTERN keys for all projectors on the Remote Commander or the control panel to clear the HATCH pattern.

21 Project the input signals from all projectors.
If the projected pictures are not aligned properly, check the following and adjust the settings.

1 Make sure that all the settings in the INPUT SETTING menu are the same.

2 Adjust the DOT PHASE in the INPUT SETTING menu.

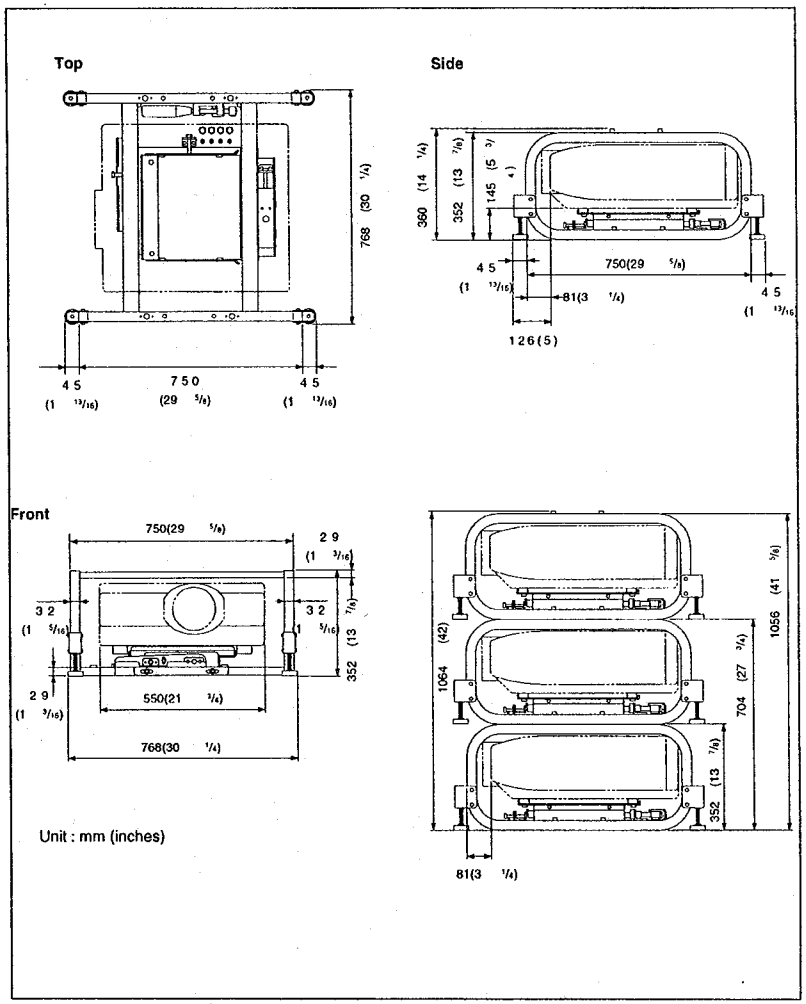
3 Adjust the H value of SHIFT in the INPUT SETTING menu.

Note

When adjusting one projector, put the lens cap on the other projector or mute the picture by pressing the MUTING key.

Specifications

Dimensions



Unit : mm (inches)

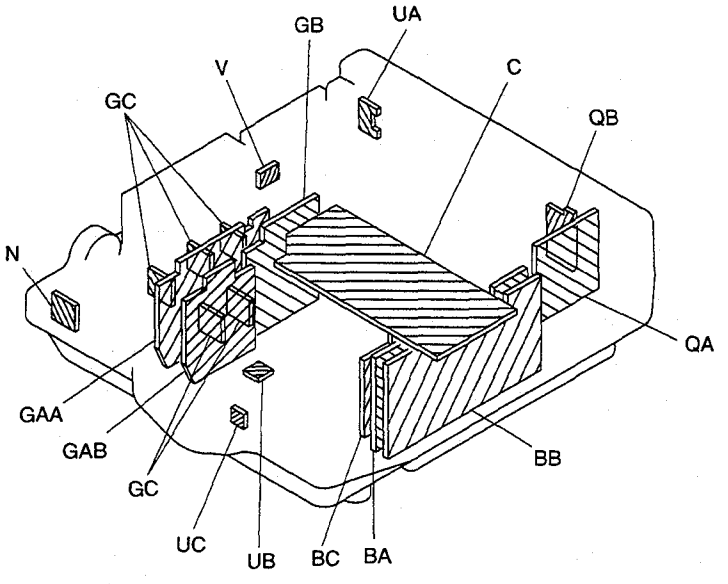
English

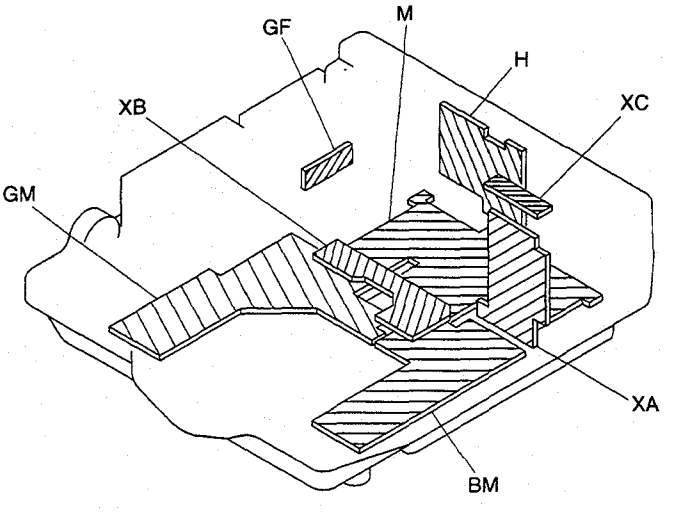
Mass	Approx. 32kg (70 lb 9 oz)
Maximum load of one projector stand	Up to 50 kg (110 lb 4 oz) per projector
Accessory	Screw M6 × 14 (8) Screw M10 × 20 (4) Shaft stack (4) Bracket stack (4) Flat washer M10 (4) Spring washer M10 (4) The eight spare bolts are attached on the lower tray of the projector stand. Use these spare bolts if necessary.

Design and specifications are subject to change without notice.

SECTION 2
SERVICE INFORMATIONS

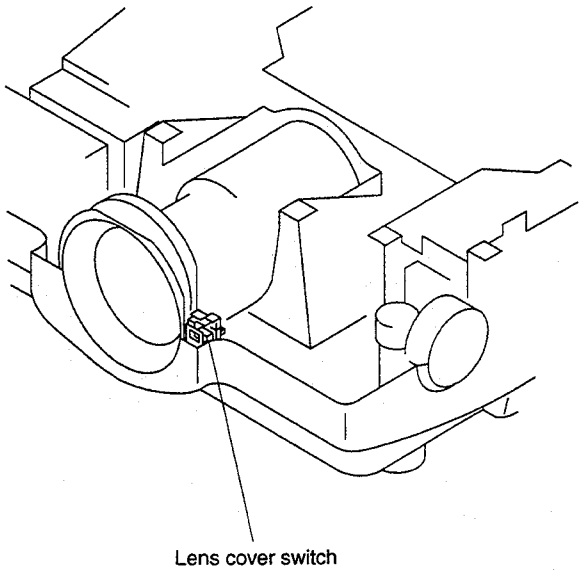
2-1. CIRCUIT BOARDS LOCATION





2-2. PRECAUTIONS ON ELECTRICAL MEASUREMENTS

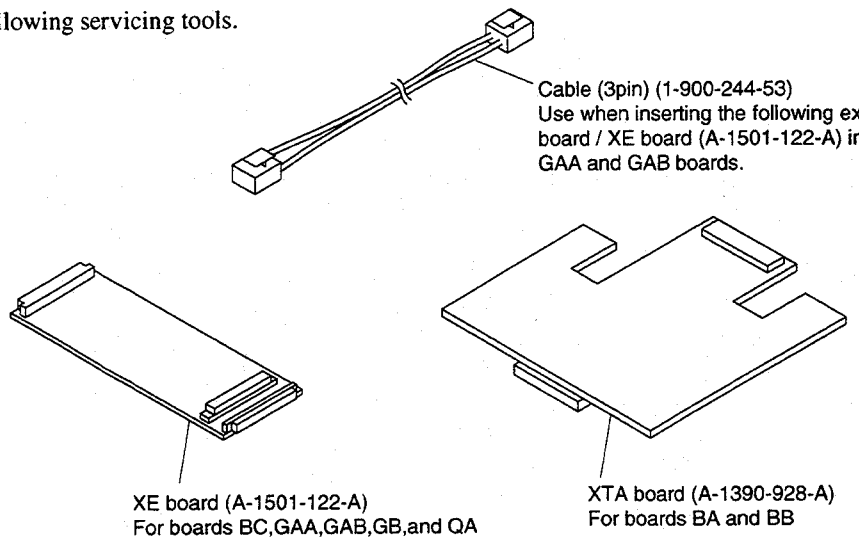
(1) A lens cover detection switch (UC board) is provided at the part for attaching the projection lens to prevent power from being supplied when the lens hood is disconnected. When performing electrical measurements with the lens hood open, fix the switch with adhesive tape and clear the protect so that power is supplied.
To attach the lens hood removed, be sure to remove the adhesive tape.



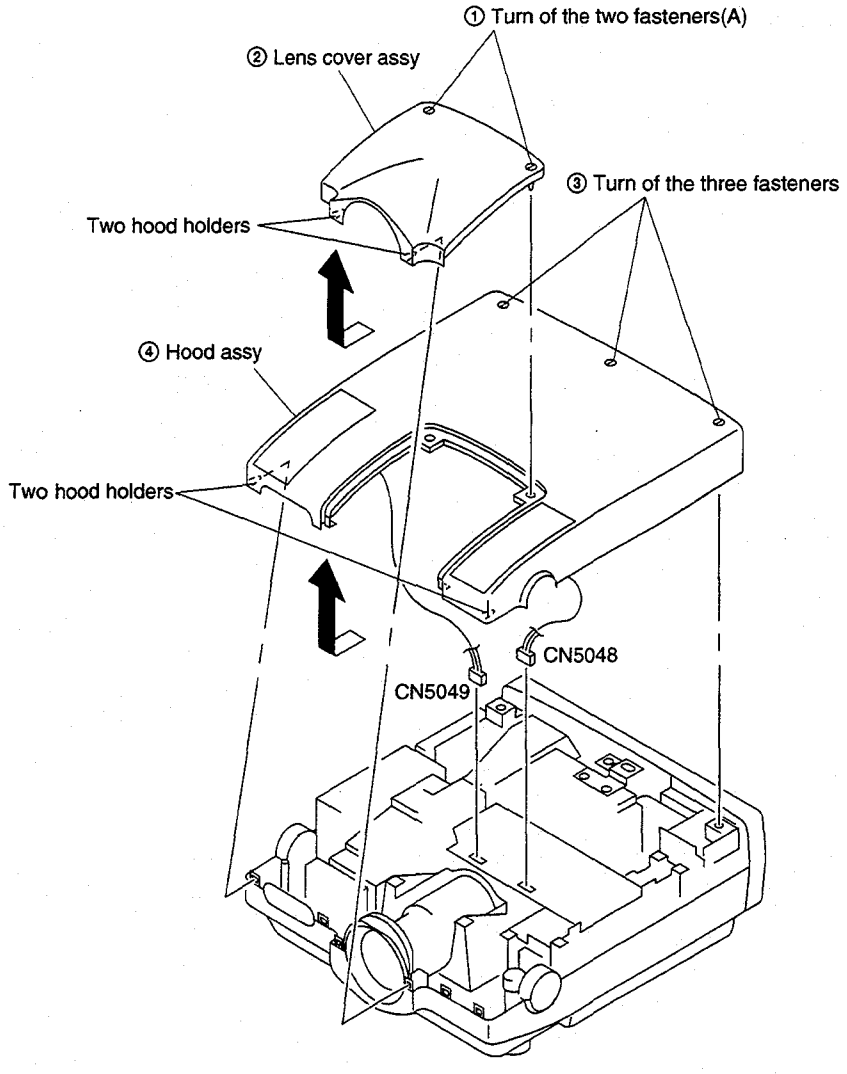
(2) When the C board is removed, various protect functions operate and no power is supplied. Before beginning electrical measurements, clear the protect functions.
①Connect Pin ㉚ (CVR-PRT-CB) and Pin ⑰ (SUB+5V) of CN4002 of the BC board using a 1 kΩ resistor.
②Connect Pin ⑯ (FAN PROT), Pin ③ (GND), Pin ⑰ (TEMP PROT), and Pin ④ of CN3602 of the BB board using wiring.

Be sure to disconnect them after completing measurements.

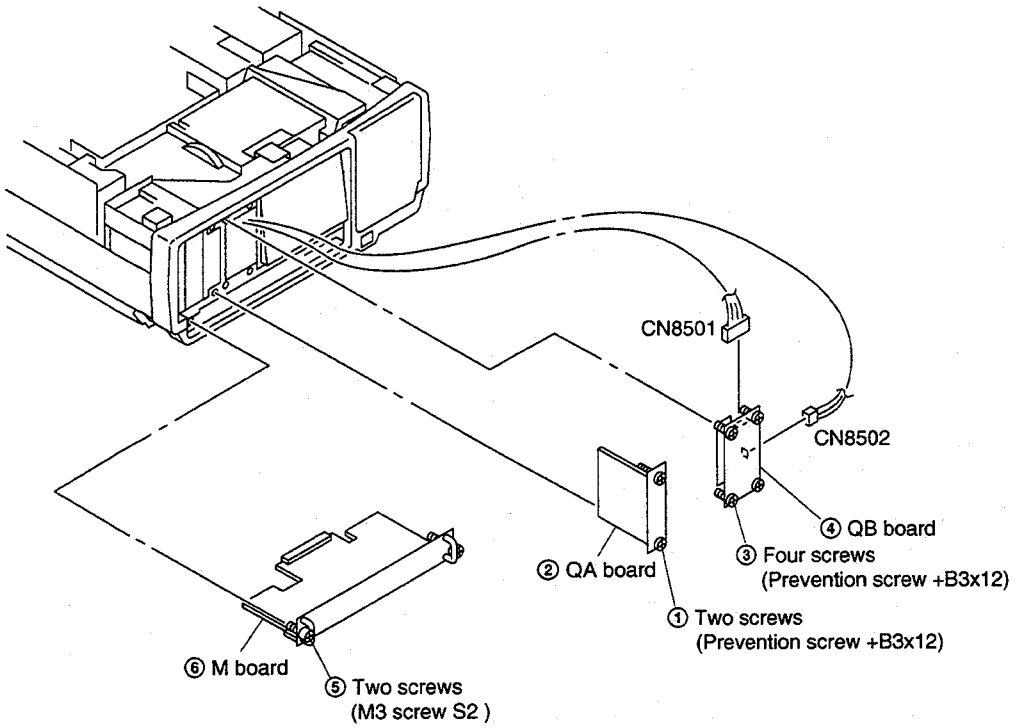
(3) Use the following servicing tools.



2-3. COVER REMOVAL

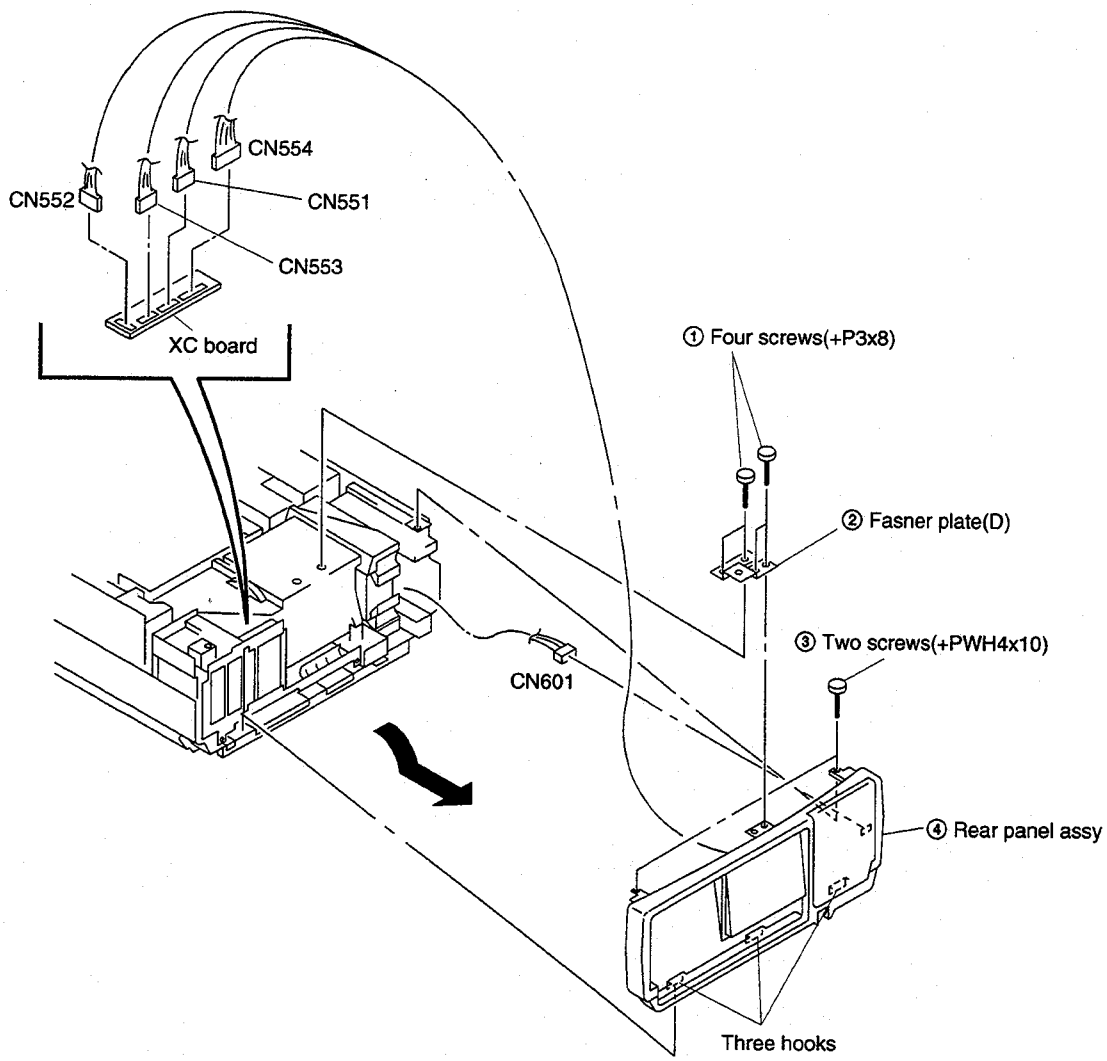


2-4. M,QA AND QB BOARDS REMOVAL



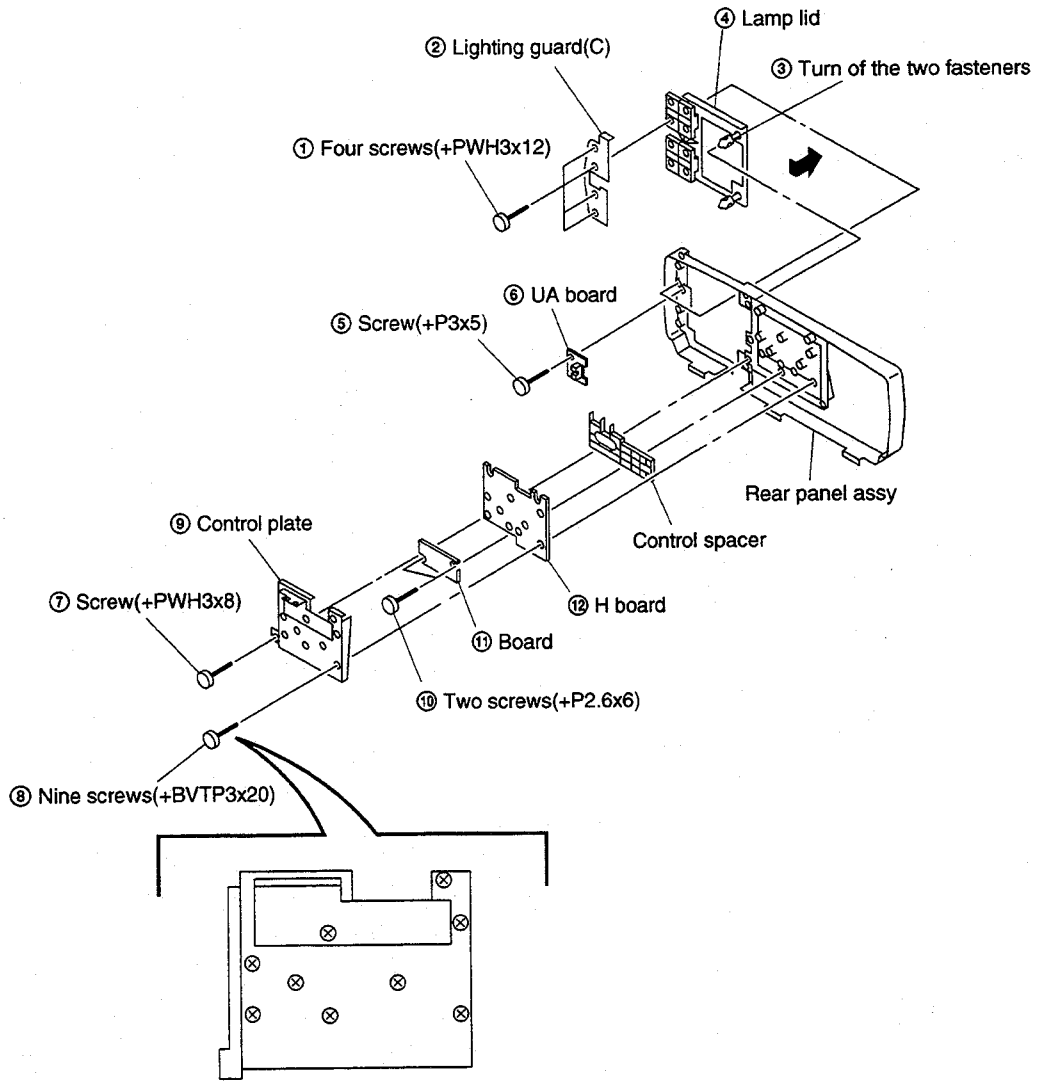
2-5. REAR PANEL ASSY REMOVAL

•Remove the M and QB boards.

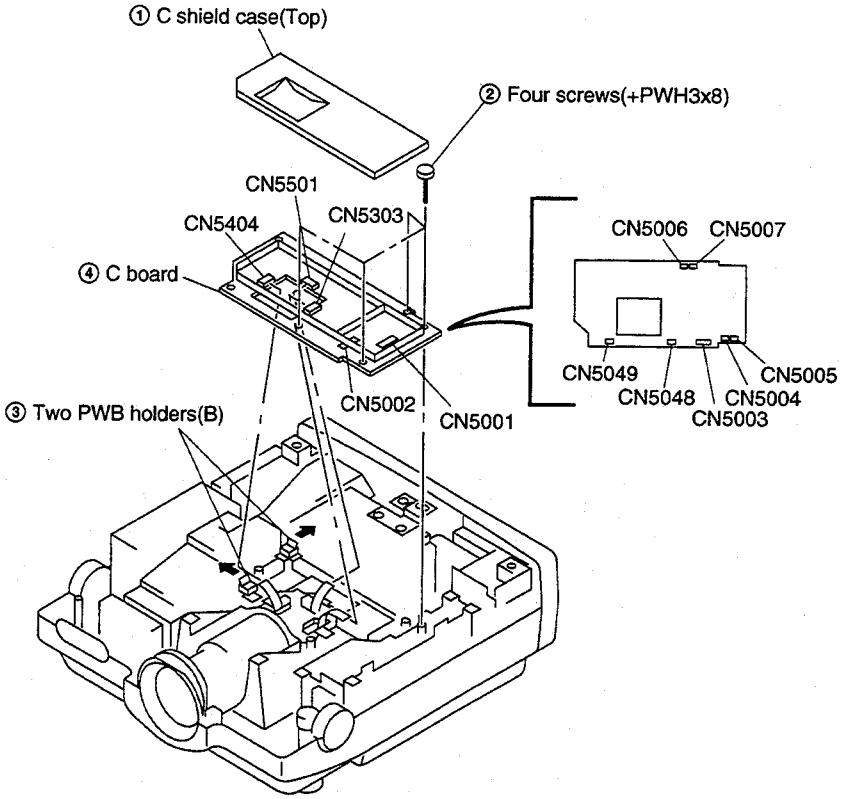


2-6. UA AND H BOARDS REMOVAL

•Remove the rear cover assy.

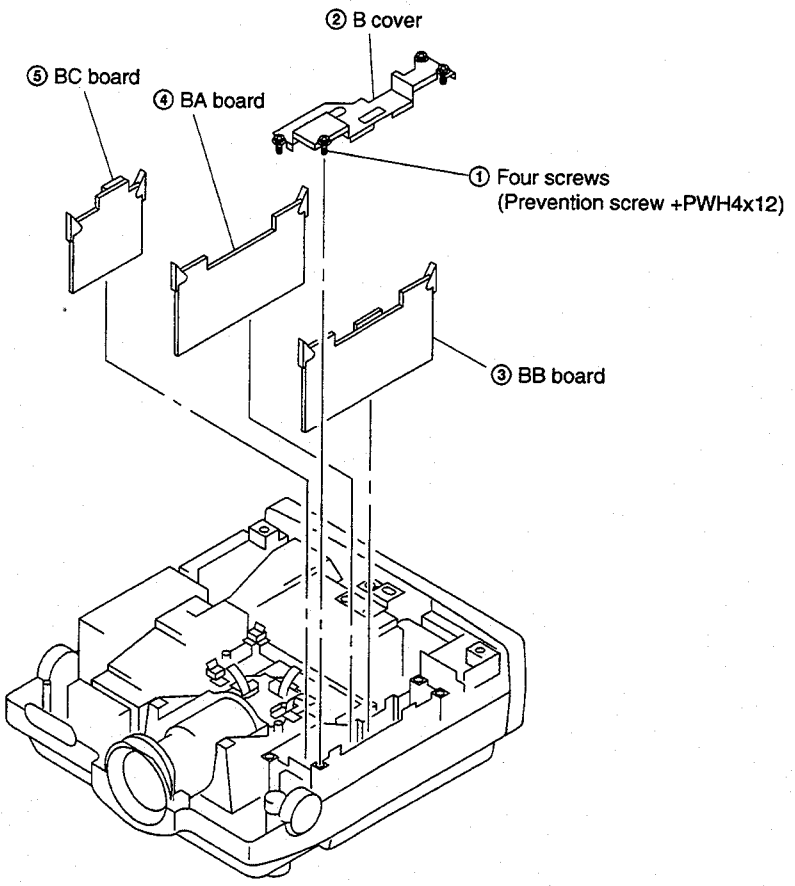


2-7. C BOARD REMOVAL

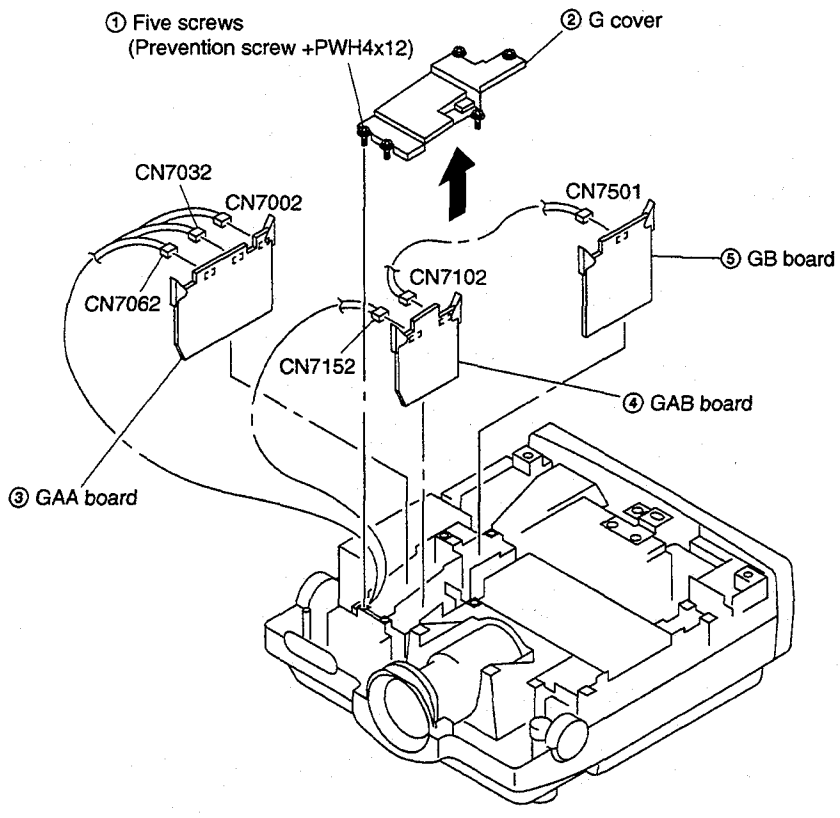


2-8. BA,BB AND BC BOARDS REMOVAL

•Remove the C board.

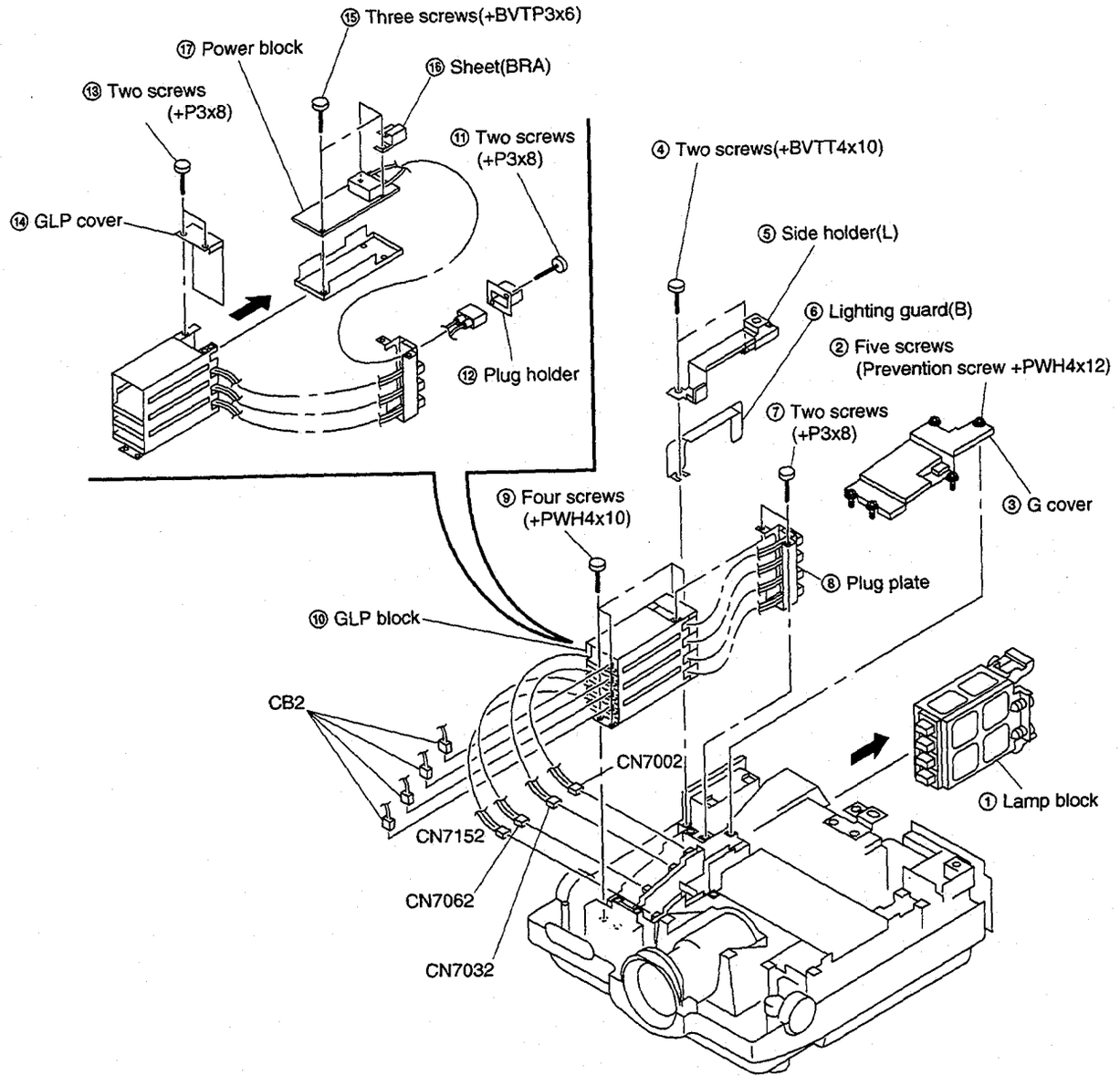


2-9. GAA,GAB AND GB BOARDS REMOVAL



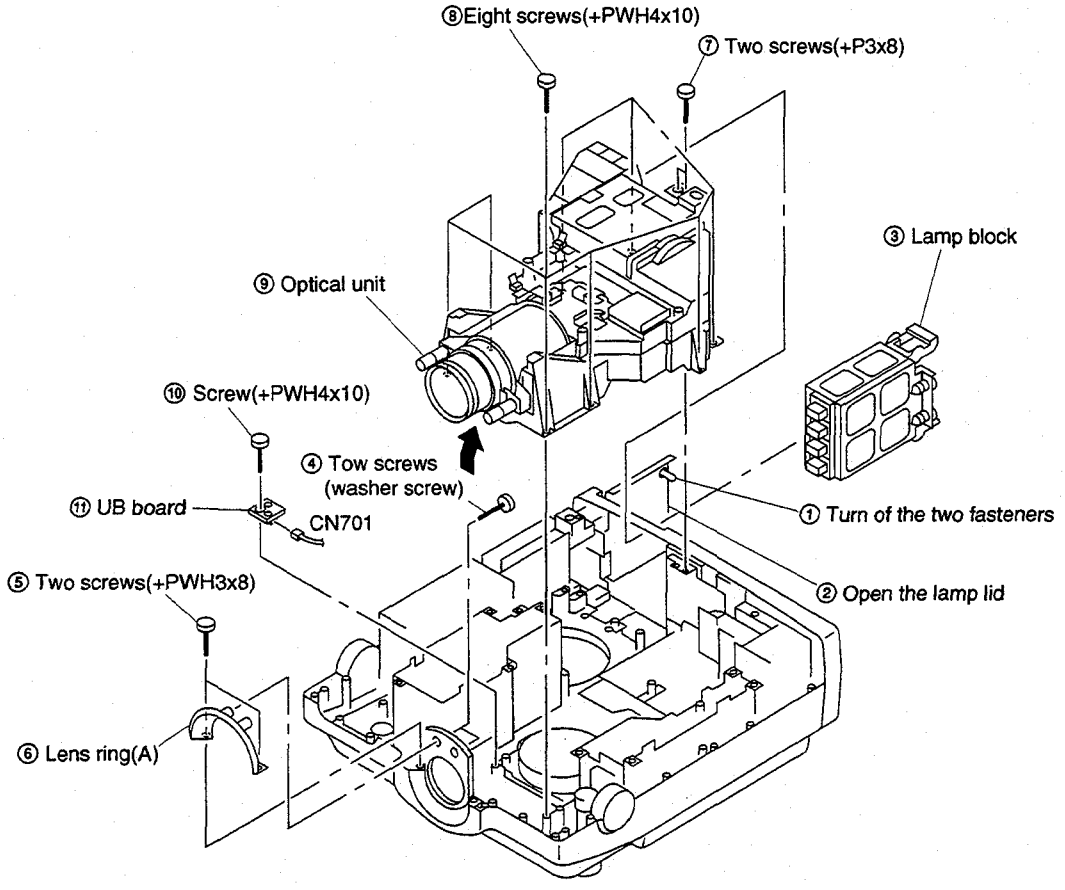
2-10. POWER BLOCK REMOVAL

•Remove the rear panel assy.



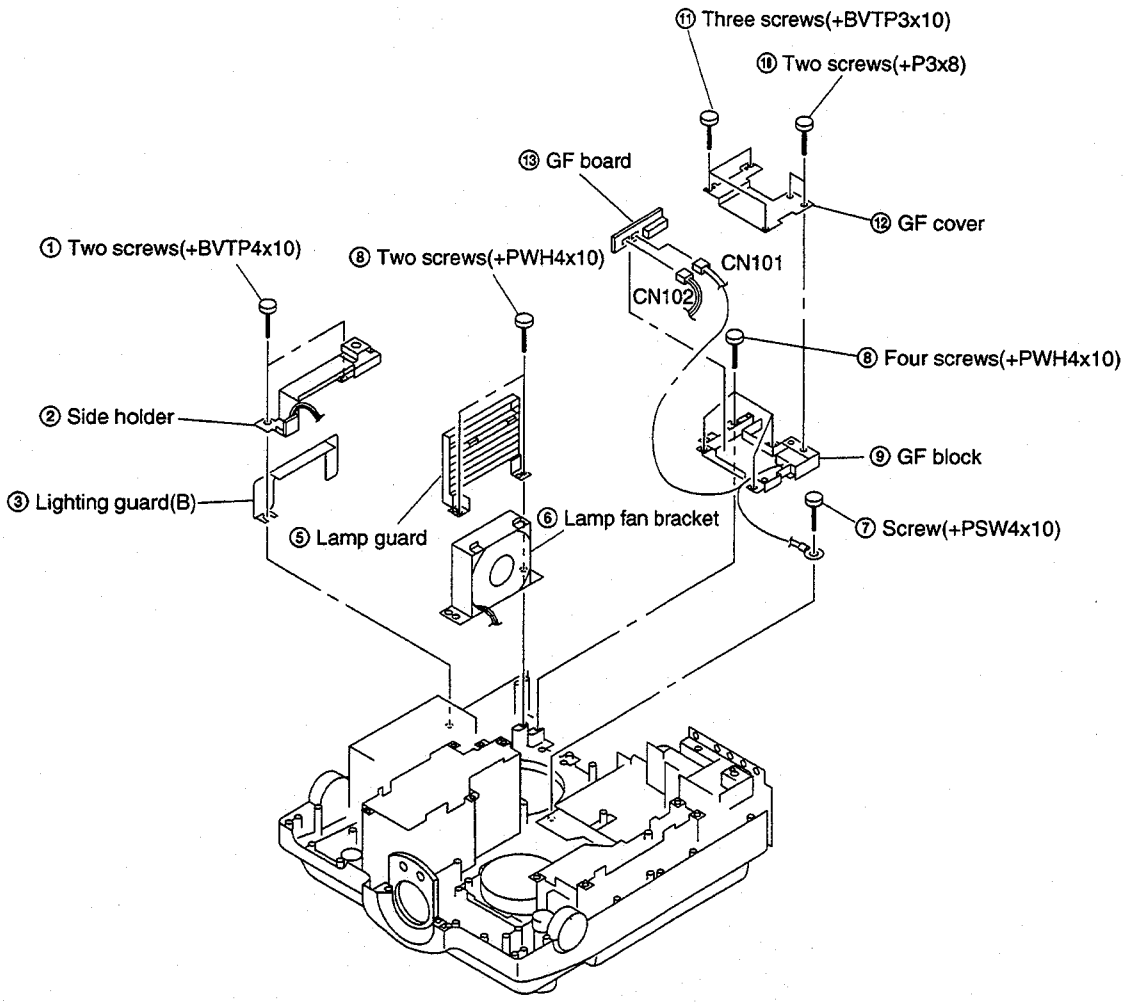
2-11. OPTICAL UNIT AND UB BOARD REMOVAL

•Remove the C board.



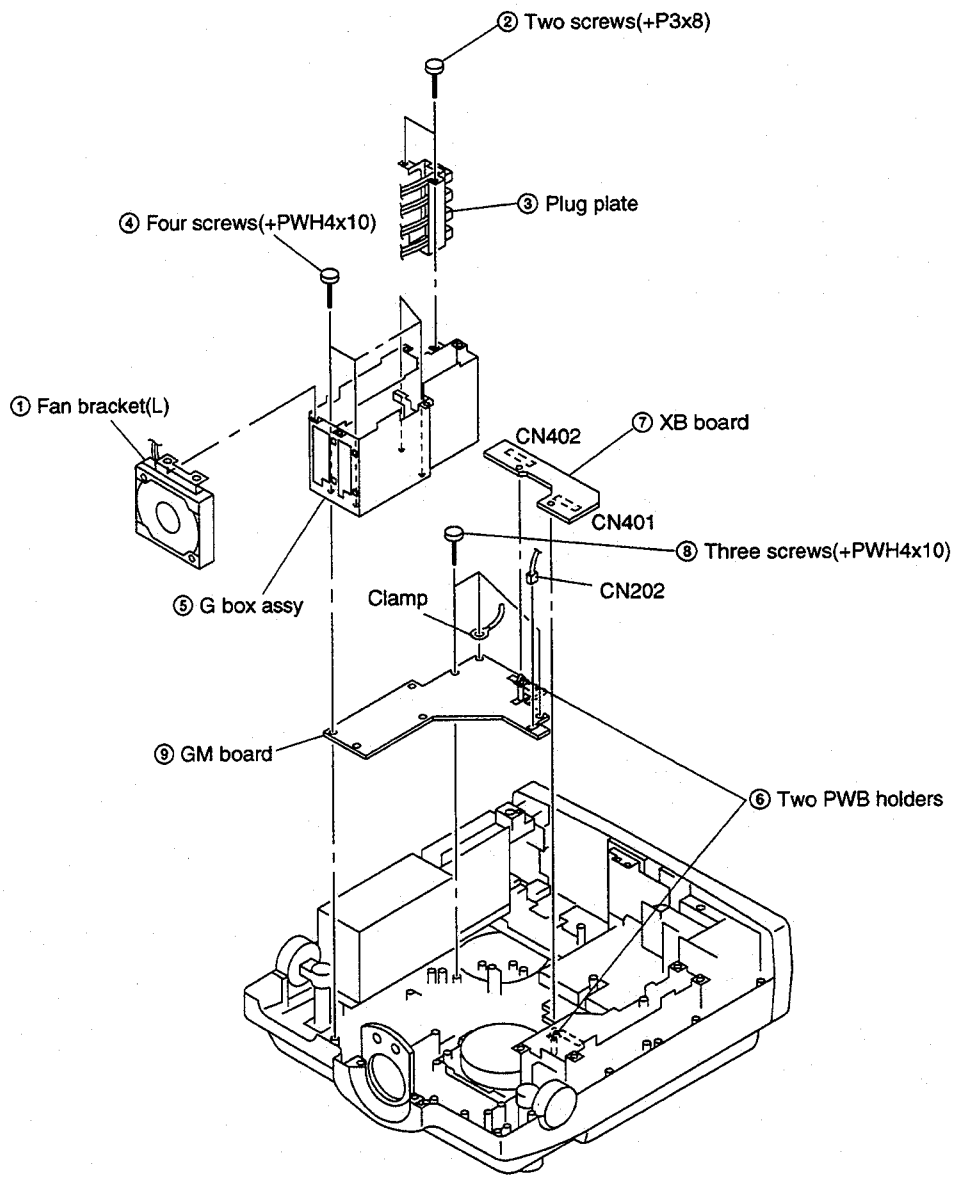
2-12 GF BOARD REMOVAL

•Remove the optical unit.
•Remove the rear panel assy.



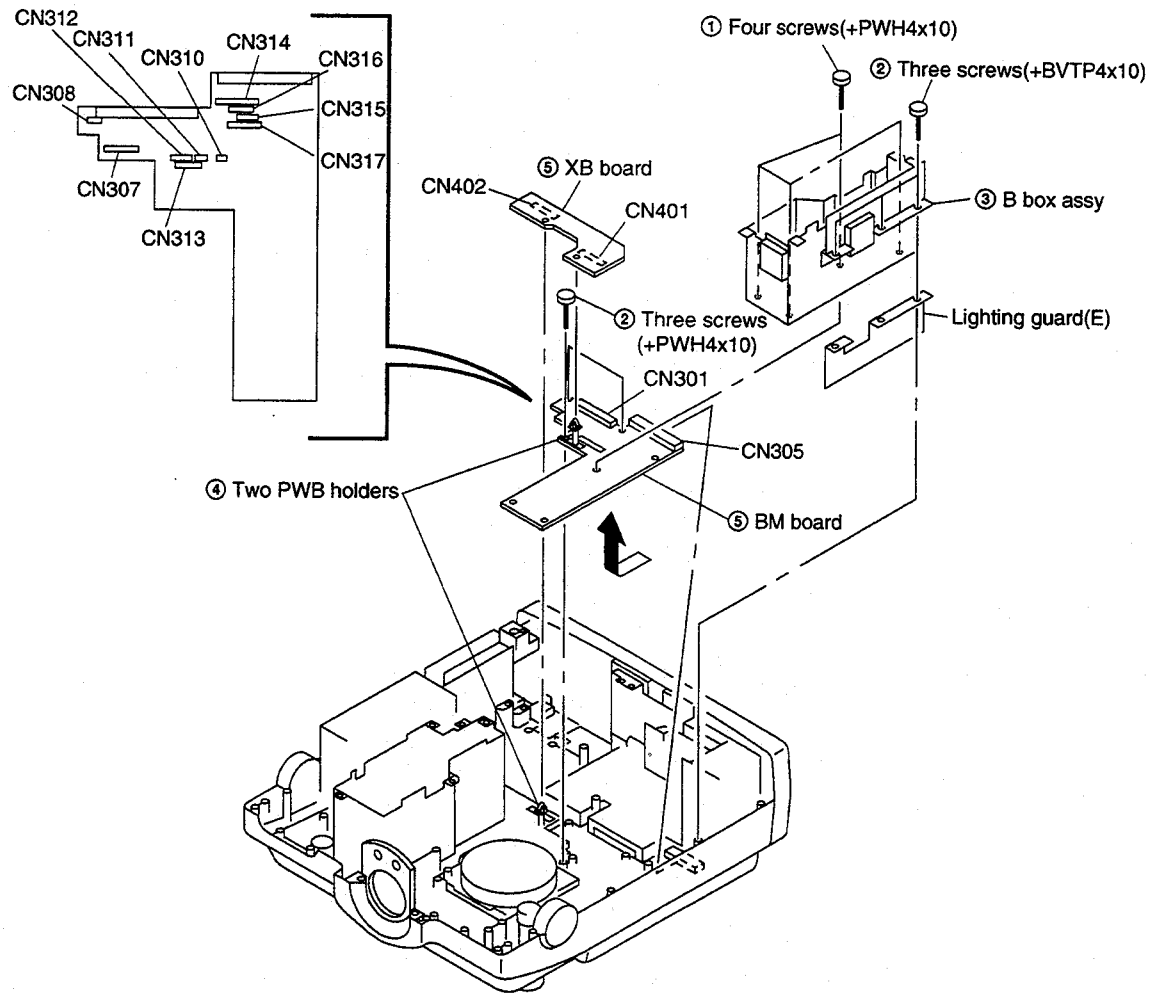
2-13. GM BOARD REMOVAL

•Remove the GAA,GAB and GB boards.
•Remove the optical unit.



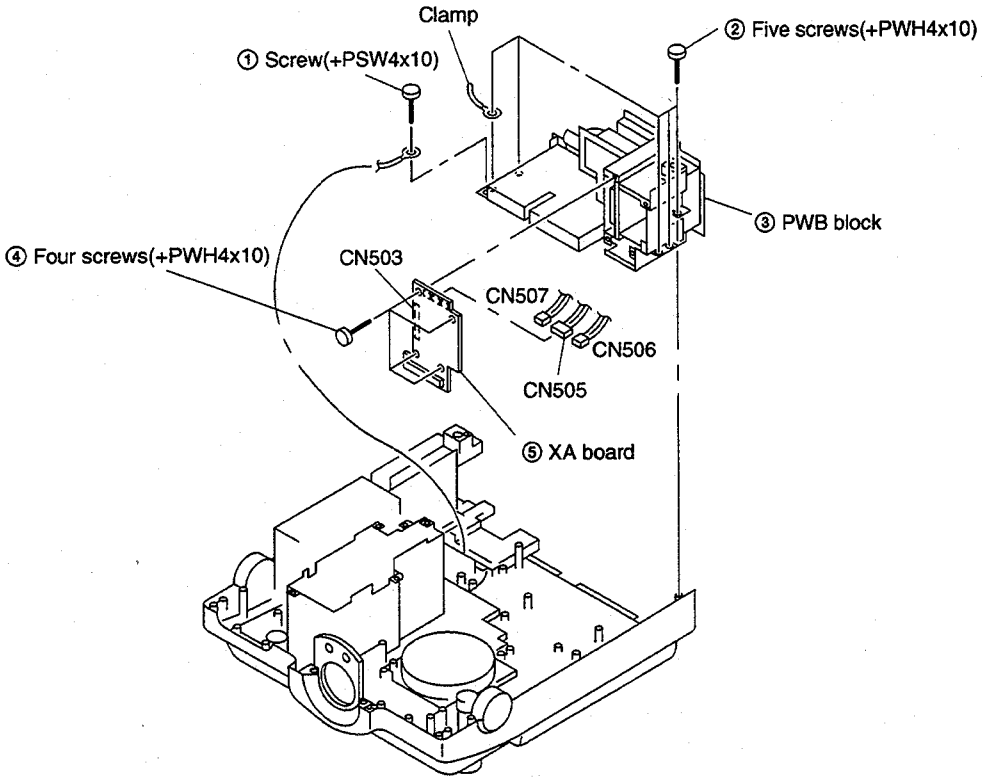
2-14 . BM BOARD REMOVAL

•Remove the BA,BB and BC boards.
•Remove the optical unit.



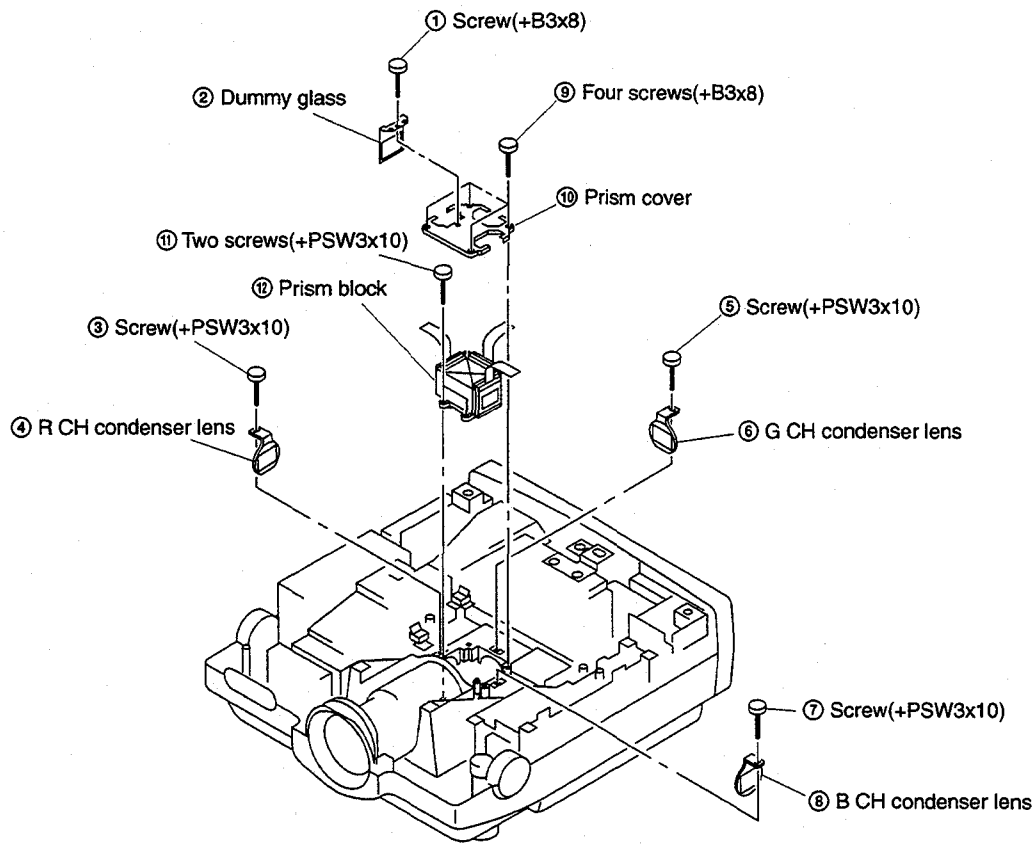
2-15 . XA BOARD REMOVAL

•Remove the BM board.
•Remove the rear panel assy.



2-16 . PRISM BLOCK AND R/G/B CH CONDENSER LENS REMOVAL

•Remove the C board.



SECTION 3
SET-UP ADJUSTMENTS

3-1. ATTACHING THE LENS

1. Attach the lens to the optical unit.
   Press the stopper at the lens side to the stopper at the optical unit side and attach the lens with the 4 screws.
   Connect the focus and zoom cables.

3-2. TURNING ON THE POWER

1. Connect the power cord and supply the power.
2. Check that the STANDBY LED of the control panel lights up in red.

3-3. C BOARD ADJUSTMENTS

3-3-1. SCEN Adjustments

1. Set the service mode.
2. Set the factory mode.
3. Connect the XGA 100IRE all white signal to INPUT-A, and select INPUT-A.
4. Connect an oscilloscope to TP5505 of the C board.
5. Set Device Adjust on the menu, select C-P DRV, and press ENTER.
6. Set SCEN using the ↑ and ↓ keys.
7. Adjust SIGSEN using the ← and → keys so that the 100IRE on the inverted side and 100IRE of the non-inverted side become symmetrical centering around the following voltage.

   From center voltage to GND = 7V ± 0.1V

3-3-2. SID OFST Adjustments

1. Set SID OFST using the ↑ and ↓ keys after completing 3-3-1.
2. Adjust SID OFST using the ← and → keys so that the pedestal level of the non-inverted side becomes the following voltage.

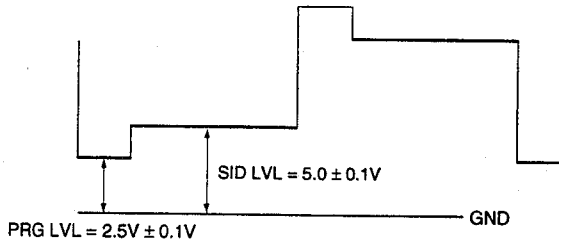
   From pedestal to GND=2.5V ± 0.05V

3-3-3. SID LVL Adjustments

1. Connect the oscilloscope to TP5511.
2. Set SID LVL using the ↑ and ↓ keys and adjust using the ← and → keys so that SID LVL becomes the following voltage.

3-3-4. PRG LVL Adjustment

1. Set PRG LVL using the ↑ and ↓ keys and adjust using the ← and → keys so that PRG LVL becomes the following voltage.
2. Remove the probe of the oscilloscope.



3-3-5. R VCOM Adjustments

Turn off the menu using the STATUS OFF during adjustments (No shield is required)

1. Set R VCOM and check the 1 line ON/OFF signal.
   Adjust the flicker of display to the minimum using the ← and → keys.

3-3-6. G VCOM Adjustments

1. Set G VCOM and check the 1 line ON/OFF signal.
   Adjust the flicker of display to the minimum using the ← and → keys.

3-3-7. B VCOM Adjustment

1. Set B VCOM and check the 1 line ON/OFF signal.
   Adjust the flicker of display to the minimum using the ← and → keys.

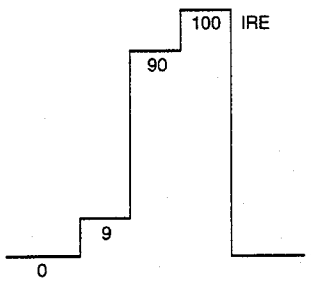
3-4. SIGNAL LEVEL ADJUSTMENTS

3-4-1. RGB Level Checks

1. Set BA MATRIX of Device adjust at the menu, and set 19 ADJ MODE from 0 to 1.
2. Input the XGA BA adjustment signal to the INPUT-A input.
3. Connect the oscilloscope to TP5505 of the C board.
4. Check that 9IRE and 90IRE are not flat.
5. Set the cursor of the oscilloscope to 9IRE and 90IRE.

   Adjust GND to the bottom edge in the DC1V range.

   INPUT SIGNAL :



3-4-2. Component Level Adjustments

1. Connect the Component signal to INPUT-A, and select COMPONENT at SIGNAL SELECT.
   (15K component 10 step signal Chroma OFF)
2. Set BA MATRIX of Device adjust at the menu.
3. Select 05 SUB BRT, and adjust using the ← and → keys so that the voltage of 10IRE of the oscilloscope matches the cursor at the bottom.
4. Select 01 PICTURE, and adjust using the ← and → keys so that the voltage of 100IRE of the oscilloscope matches the cursor at the top.
5. Set the signal to the component color bar.
   (15K component color bar Chroma ON)
6. Adjust the cursor at the top of the oscilloscope to the bar on the left side bar (white part).
7. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
8. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
9. Set the signal to the 10 step signal, and return the cursor at the top to 100IRE.
10. Move the cursor to the SAVE TO MEMORY line of device adjust, and press the ENTER key."

3-4-3. VIDEO NTSC Level Adjustments

1. Input the NTSC 100% Color bar signal to the VIDEO input, and switch the input to VIDEO.
   BA MATRIX of device adjust of the menu is set.
2. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
3. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.-

3-4-4. VIDEO PAL Level Adjustments

1. Input the PAL 100% Color bar signal to the VIDEO input.
   BA MATRIX of device adjust of the menu is set.
2. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
3. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
5. Move the cursor to the SAVE TO MEMORY line of device adjust, and press the ENTER key."

3-4-5. Y/PB/PR Level Adjustments

1. Input the HDVS 100% Color bar signal to INPUT-A, select INPUT-A, and select Y/PB/PR using SIGNAL SELECT.
2. Set BA MATRIX of Device adjust at the menu.
3. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Move the cursor to the SAVE TO MEMORY line of device adjust, and press the ENTER key."

3-4-6. 15KRGB Level Adjustments

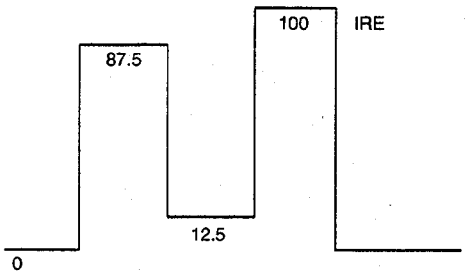
1. Input the 15K RGB 100% Color bar signal to INPUT-A, select INPUT-A, and select RGB using SIGNAL SELECT.
2. Set BA MATRIX of Device adjust at the menu.
3. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Move the cursor to the SAVE TO MEMORY line of device adjust, and press the ENTER key."

3-4-7. W/B HIGH Adjustments

1. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5505.
2. Set BB GAMMA of Device adjust of the menu.
3. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.
4. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
5. Set W/B Adjust HIGH on the menu.
6. Adjust Blue BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
7. Adjust Blue GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
8. Perform the tracking of (6) and (7).
9. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5502.
10. Set BB GAMMA of Device adjust of the menu.
11. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.
12. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
13. Set WB Adjust HIGH on the menu.
14. Adjust Green BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
15. Adjust Green GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
16. Perform the tracking of (14) and (15).

    Adjust GND to the bottom edge in the DC1V range.

    INPUT SIGNAL :



17. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5508.
18. Set BB GAMMA of Device adjust of the menu.
19. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.
20. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
21. Set WB Adjust HIGH on the menu.
22. Adjust Red BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
23. Adjust Red GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
24. Perform the tracking of 22 and 23.
25. Select SAVE TO MEMORY at the W/B ADJUST page of the menu, press ENTER, and save the data.
26. Set Device adjust of the menu, select BA MATRIX, and return the 19 ADJ MODE from 1 to 0.
27. Press ENTER, select SAVE TO MEMORY of the menu, press ENTER again, and save the data.

3-5. ADJUSTMENTS IN REPLACEMENT OF PRISM

Perform the following adjustments after replacement of the prism.

3-5-1. Set the factory mode

When "ENTER", "ENTER", "←", and "ENTER" are pressed in the service mode, the screen will ask "do you want to set the factory mode". Set the factory mode according to the screen.

3-5-2. VCOM Adjustment

The bottom most menu item on the main menu is the Device Adjustment Menu. Set this menu and select "C-P DRV". Perform V COM adjustments for each of the item "V COM/R", "V COM/G", and "V COM/B".

In the above mode, as the built-in test pattern will be output, adjust so that flicker is minimum throughout the whole screen.

3-5-3. Adjustment of Polarization Plate

Select "BB-GAMMA" on the device adjustment menu.

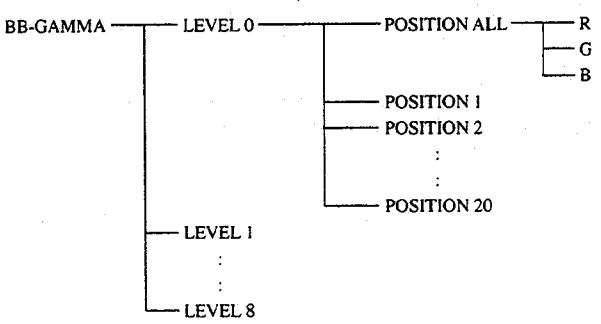
This will display "LEVEL 0" and "POSITION ALL", and the whole screen will become black. In this state, adjust the respective polarization plate until the black becomes the darkest.

3-5-4. Adjustment of 3Dγ (Outline)

The principle of 3Dγ is described before the adjustment of 3Dγ. 3Dγ is like a function which can individually adjust W/B at a total of 180 points brightness 9 levels, horizontal direction 5 points, vertical direction 4 points (9*5*4=180 points).

So altogether 540 adjustments (180*3 (RGB)=540) will be required, which is in practice not possible. The following describes a simpler method.

First the "BB-GAMMA" menu consists of the following hierarchy.



When adjusting a certain LEVEL, automatically the internal signal (flat field) of that level will be displayed.

3-5-5. Adjustments of 3Dγ (Adjusting Method)

1. First input "BB-GAMMA".
2. Set LEVEL to 1.
3. Study the uniformity of the whole screen, and locate the areas where uniformity is poor.
4. Changing "POSITION" to 1, 2, or 3 will display the cursor. The position of the cursor is the position which will be adjusted.
   Move the cursor to the area with poor uniformity.
5. Move "R" and "B" up and down, and adjust so that the uniformity is the same as the other areas.
6. Set LEVEL 2.
7. Like steps 3, 4, and 5, adjust the areas with poor uniformity.
8. Adjust up to LEVEL 7.
9. Study the test pattern from LEVEL 1 to LEVEL 7, and if no problems, return to the first hierarchy, adjust the device, and save the data in SAVE TO MEMORY.

Precautions:

1. Basically adjust RED and BLUE only without changing GREEN.
2. Do not change POSITION ALL.
3. Do not adjust LEVEL 0 and LEVEL 8.
4. To set back factory settings should adjustments fail, skip "SAVE TO MEMORY", press the STANDBY key, and turn off the power. All the adjusted data will be set back to factory settings.
   Factory settings cannot be set back however if "SAVE TO MEMORY" has already been implemented. So check the picture quality carefully prior to implementing "SAVE TO MEMORY".
5. For zoom lens, the uniformity will change slightly according to the zoom position.
   As uniformity will change slightly according to the F number of the lens, perform the adjustments on the projection system under the normal using conditions.
6. Do not change other items in the Device Adjust Menu.
   The device adjust menu contains important parameters for machine operations.
   Unnecessary operations will result in "no image" and "abnormal image".
   "Factory reset" cannot be performed on device adjust menu items.
   (Implementing SAVE TO MEMORY will completely overwrite the data.)
   Do not change data unnecessarily.

3-5-6. W/B LOW Adjustments

1. Switch the INPUT-A input signal to the VGA 80 IRE flat field signal, and set to COLOR TEMP LOW. Set GAIN R, G, B and BIAS R, G, B to the same value as the HIGH data.
2. Next increase the value of Red GAIN by 25.
3. Perform tracking so that the following specification is satisfied.
   Adjust G and B without changing Red GAIN.
   80 IRE White Chrominance
   <Specification> (x, y)=(0.300 ± 0.003, 0.330 ± 0.003)
4. Switch the INPUT-A input signal to the VGA 20 IRE flat field signal.
5. Adjust the W/B adjust BIAS G and BIAS B data so that the white color temperature satisfies the following specification.
   20 IRE White Chrominance
   <Specification> (x, y)=(0.300 ± 0.003, 0.330 ± 0.003)
6. Switch the INPUT-A input signal to the 80 IRE flat field signal.
7. Adjust the W/B adjust GAIN G and GAIN B data so that the white chrominance satisfies the following specification.
   80 IRE White Chrominance
   <Specification> (x, y)=(0.300 ± 0.003, 0.330 ± 0.003)
8. Repeat steps 4 to 7 to perform tracking so that the specification is satisfied.

3-6. M BOARD ADJUSTMENT

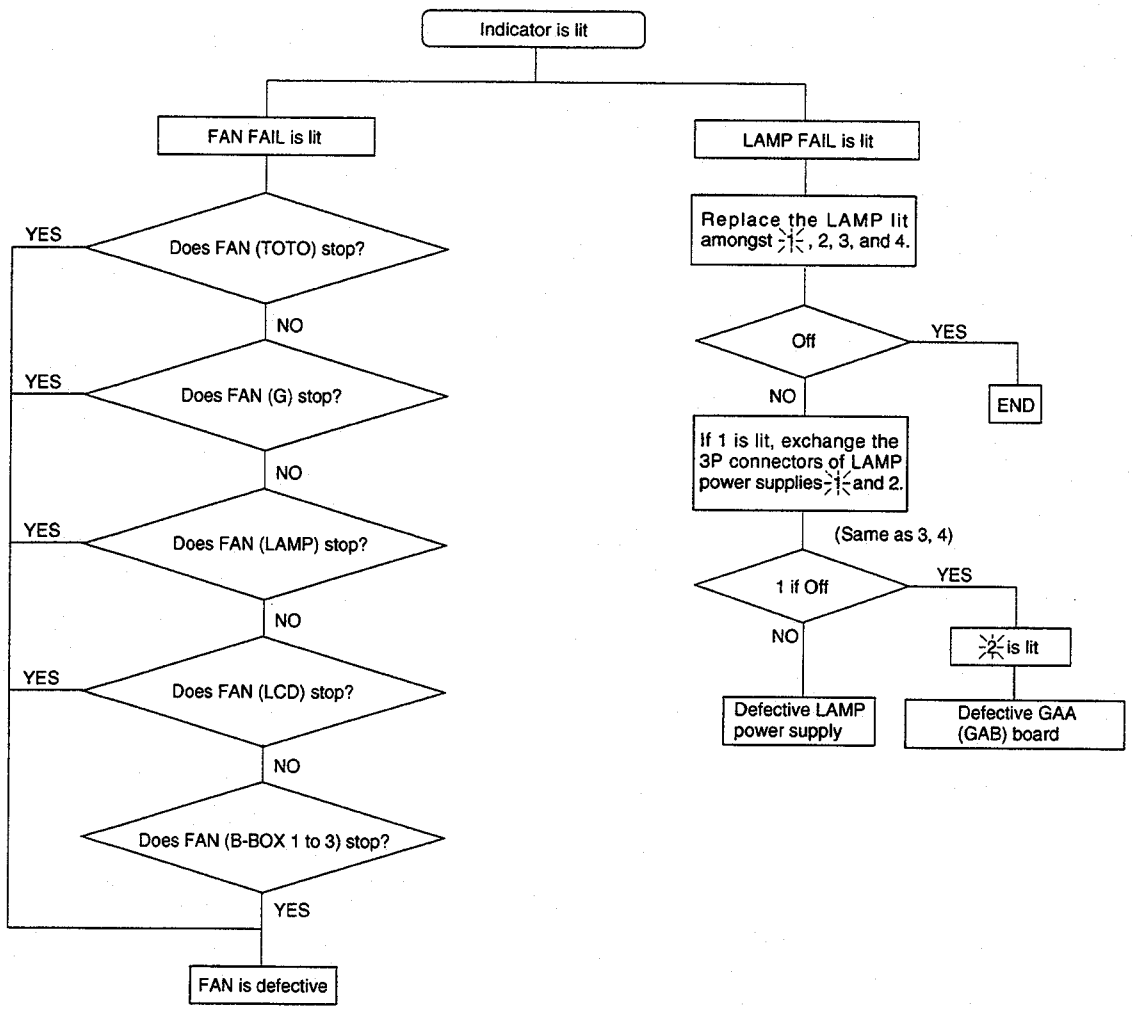
3-6-1. Current Detection 0 Set Adjustment

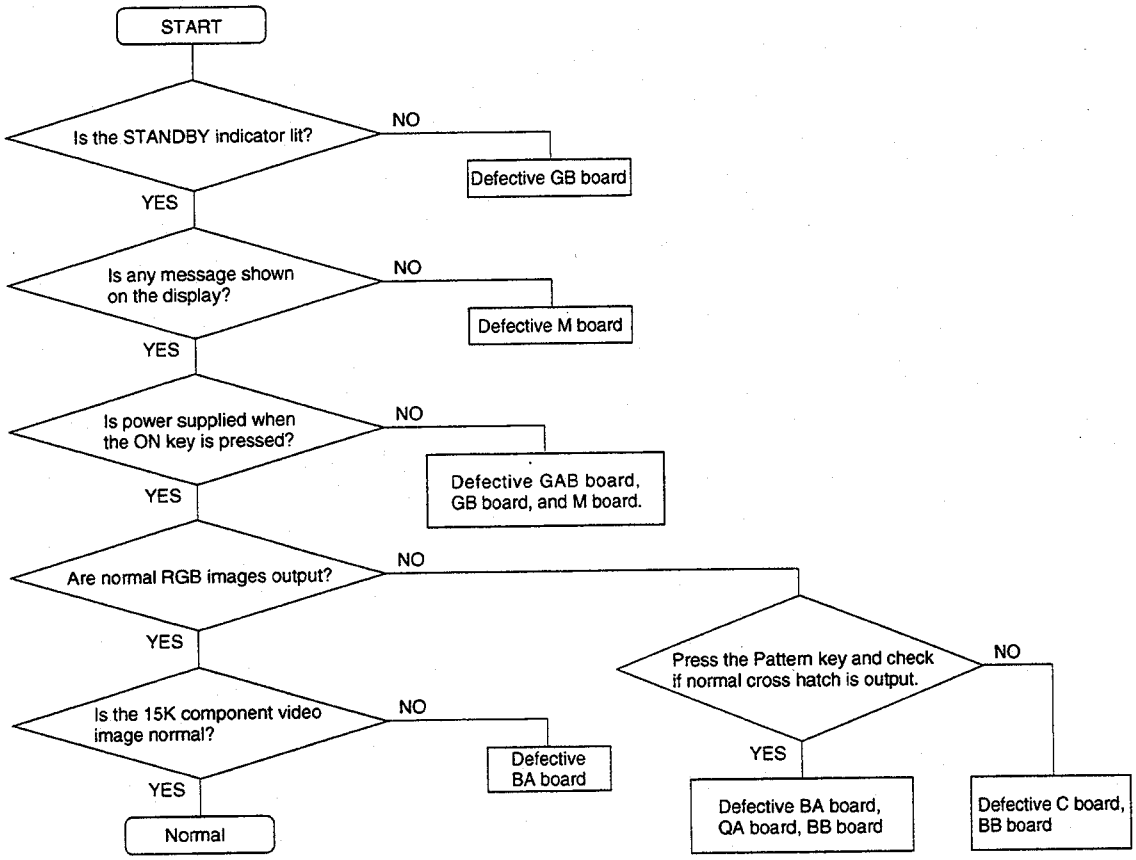
Set CONTROL-S IN to no lord (open).
Adjust RV2901 so that TP2901 (0 set) becomes 30 mV ± 10 mV.

SECTION 4
TROUBLE SHOOTING

As most of the boards of X2000 are of the slot type, the following are flowcharts for checking "which board is defective" the fastest.
The flowcharts show highly probable malfunctions, so that may not be useful for all defects.
Where more than 2 defective boards are indicated, the first board is more likely to become defective.

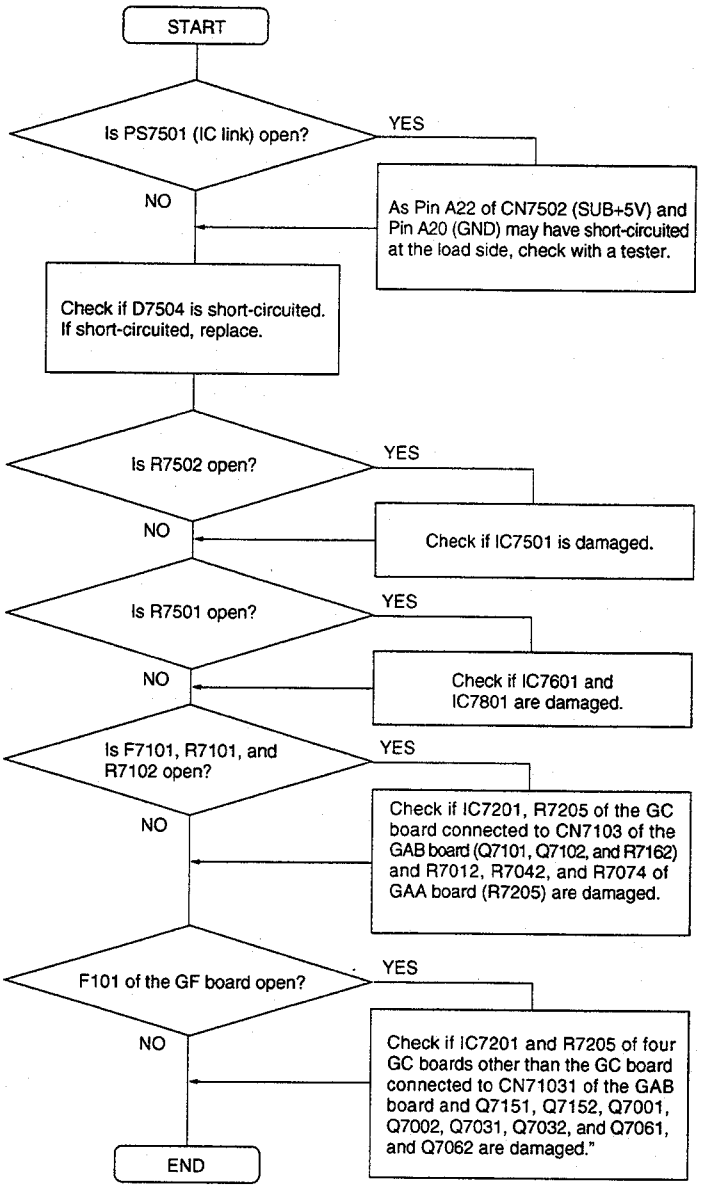
4-1. INDICATOR SECTION TROUBLE SHOOTING



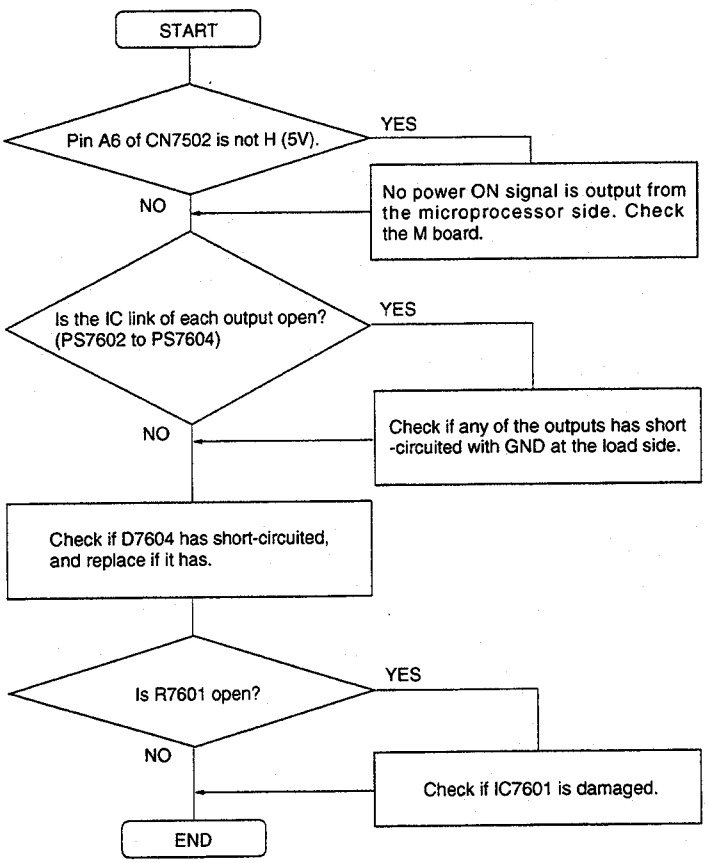

START
Is the STANDBY indicator lit?
NO
Defective GB board
YES
Is any message shown on the display?
NO
Defective M board
YES
Is power supplied when the ON key is pressed?
NO
Defective GAB board, GB board, and M board.
YES
Are normal RGB images output?
NO
YES
Is the 15K component video image normal?
NO
Defective BA board
YES
Normal
Press the Pattern key and check if normal cross hatch is output.
NO
YES
Defective BA board, QA board, BB board
Defective C board, BB board

4-2. POWER SUPPLY SECTION TROUBLE SHOOTING

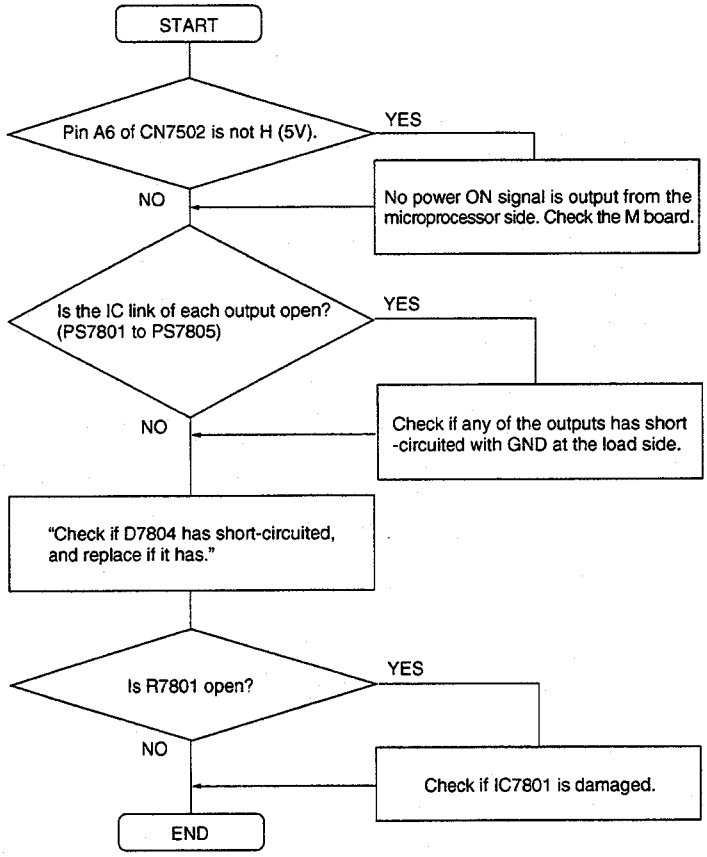
(1) If the unit does not set into the standby state even when connected to an AC outlet. (The standby LED on the control panel does not light up.)



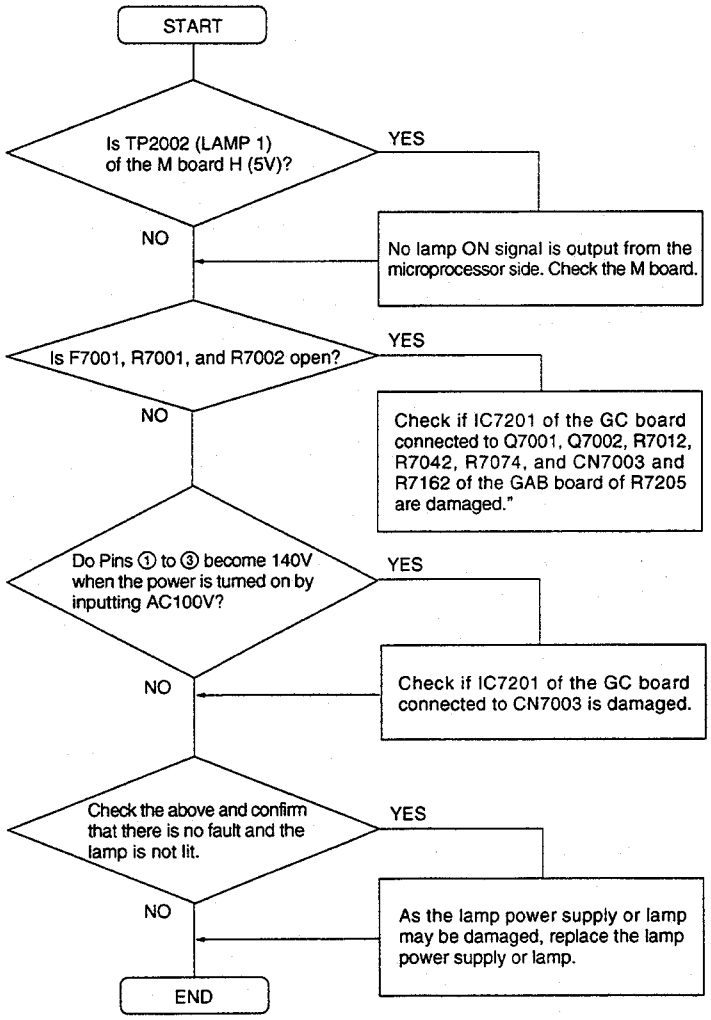
(2) The standby power is output, but no power from the analog circuit (+6.2V, 13.5V, 17V) is output even if the power is turned ON.



(3) The standby power is output, but no digital circuit power (+3.3V, +5.2V, —5.2V, —2V, AUDIO+B is output even when the power is ON.

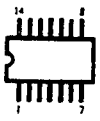


(4) The lamp does not light up although the standby, analog power, and digital power are output.
(This unit has four circuits each for the lamp power supply and active filter for the lamp power supply. As all of these circuits are the same, only the circuit of lamp 1 will be described here.)

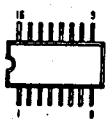


SECTION 5
SEMICONDUCTORS

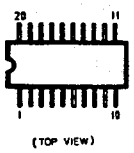
74LCX08MTCX
74LCX32MTCX
74LCX74MTCX
MAX489ECSD-TE2
NJM2901M-TE2
NJM2904M
PC74HC08D-T
PC74HC14D-T
PC74HC32D-T
SN74HCU04ANS-E20
TC74VHC02AF
TC74VHC02F
TC74VHC08F
TC74VHC32F
TC74VHCT04AF
TC74VHCT04F
TLC2932IPW-E20
TLC2933IPW-E20



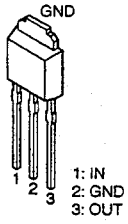
74LCX157MTCX



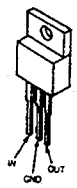
74LCX541MTCX
74LCX574MTCX
IMISM530AYB-D
M62399FP-TE2
M74F244MEL
MC100EL91DWR2
MC10H351MEL
MC74F244MEL
TC74VHC240F
TC74VHC244F
TC74VHC245F
TC74VHC541F
TC74VHCT244AF
TC74VHCT541AF
TC74VHCT541AFT
TDA7315D013TR



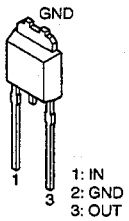
BA05FP-E2
BA09FP-E2
BA12FP-E2



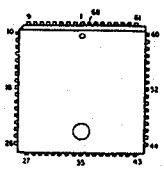
BA12T



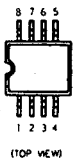
BS05FP
TA78109F



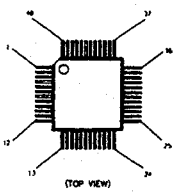
CXA1166K



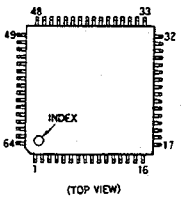
CXA1211M-T4
CXA1450M-T4
GS4981CTA
LM358P
MAX3085CSA-TG068
MAX4121CSA-TE2
MM1112XFBE
NJM2235M-T1
NJM2240M
NJM2533M
NJM4558E
OPA2658U/2K5
OPA658U-T2
SN75157
TC7W00FU
TC7W04F
TC7W04FU
TC7W08FU
TC7W32F
TC7W74F
TC7WU04FU
TL082CPS-E20
TL431BCDR2
UPC358G2-T2



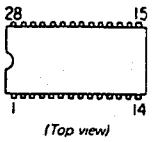
CXA1839Q-T6
CXA1855Q
CXA3106AQ
CXA3197R
ISPLSI2032-80LT48-M01V1



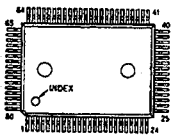
CXA2011Q
CXA2112R-T6



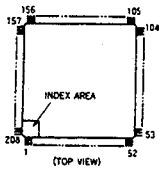
CXA2119M
M48Z35Y-70PCI
MN47V77ST1



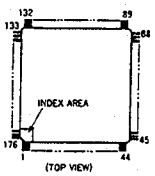
CXD2024AQ
CXP846P48Q-1



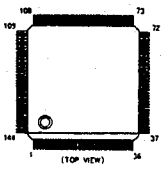
CXD2062Q
CXD2070Q
CXD8760FQ
GMZ1AH2B
UPD65806GD-064-ML



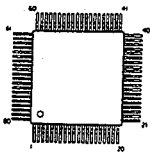
CXD2071R



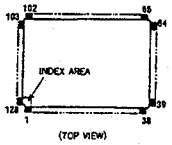
CXD8675R
CXD8773R
HD6437043AE00F
IP90C63



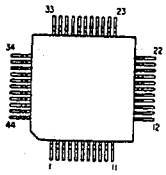
CXD8774R



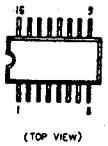
CXG8007TQ



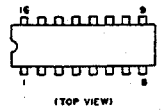
CY7C1021-20ZC
IDT71016S15Y-TL
ISPLSI1016E-80LT44-BB01V1
ISPLSI1016E-80LT44-BB02V1
ISPLSI1016E-80LT44-C01V1
ISPLSI1016E-80LT44 M01V1



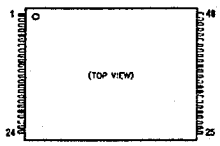
EL4093CS-TE2
MAX4066CEE-TE2
MC10H101MEL
MC10H116MEL
MC10H124MEL
MC10H125MEL
MC10H350P
MC74HC4052F-T2
MC74HC4053F-T2
MC74HC4538AF-T2
PC74HC123D-T
TC74LCX138FT
TC74VHC123AF
TC74VHC153F
TDA4665T-T



FA5331P



L7809CV



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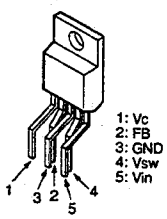

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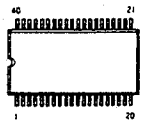

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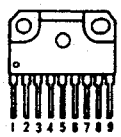

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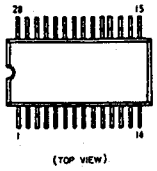

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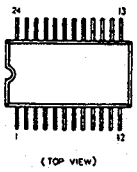

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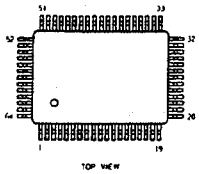

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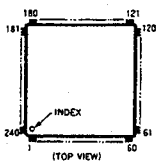

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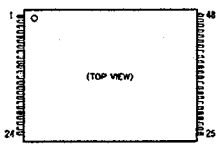

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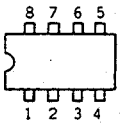

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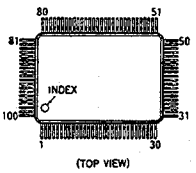

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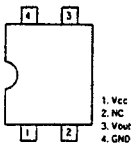

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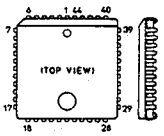

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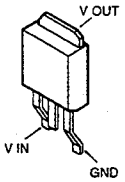

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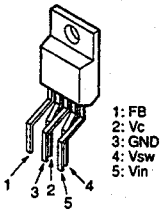

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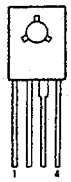

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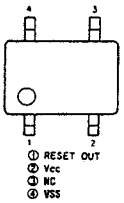

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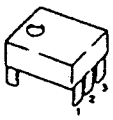

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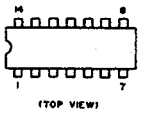

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TC7S86FU
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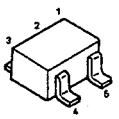

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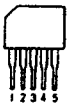

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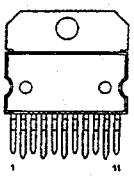

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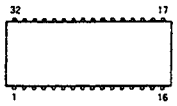

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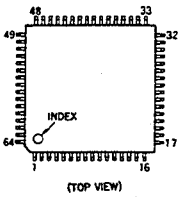

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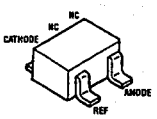

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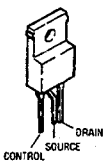
TOP226Y-BB
TOP227Y-BB



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2SC2859-Y-TE-85L
2SC3326N
2SC3545
2SC3624A
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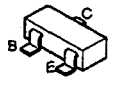
DTC144EKA-T146



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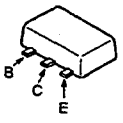

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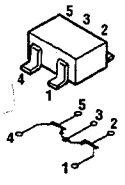

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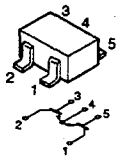

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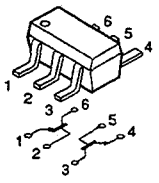

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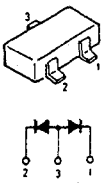

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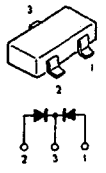

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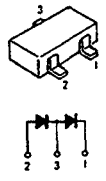

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RD9.1SB2-T1
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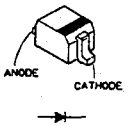

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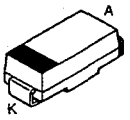

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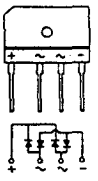

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FCQ20A04

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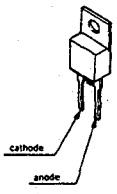

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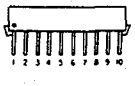

MU04-2105

MU04-3101

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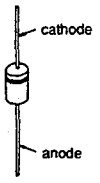

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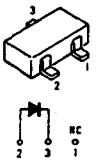

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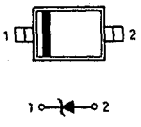

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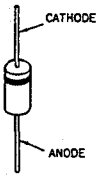

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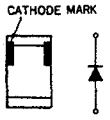
SEC1901C



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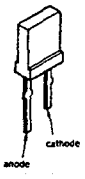

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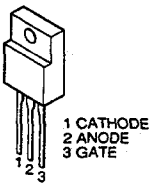


SECTION 6
EXPLODED VIEWS

NOTE :

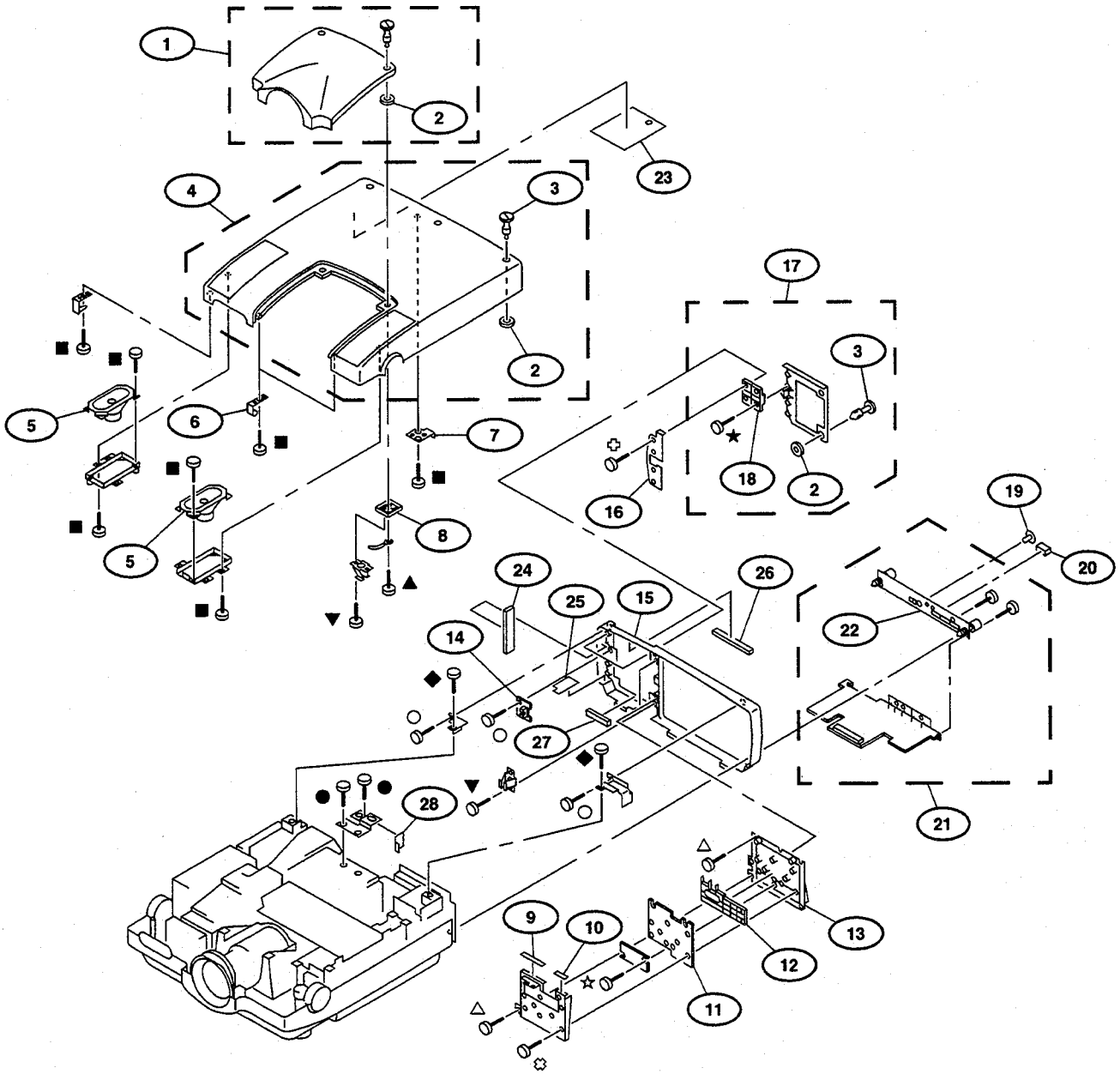
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

6-1. HOOD, REAR PANEL BLOCK

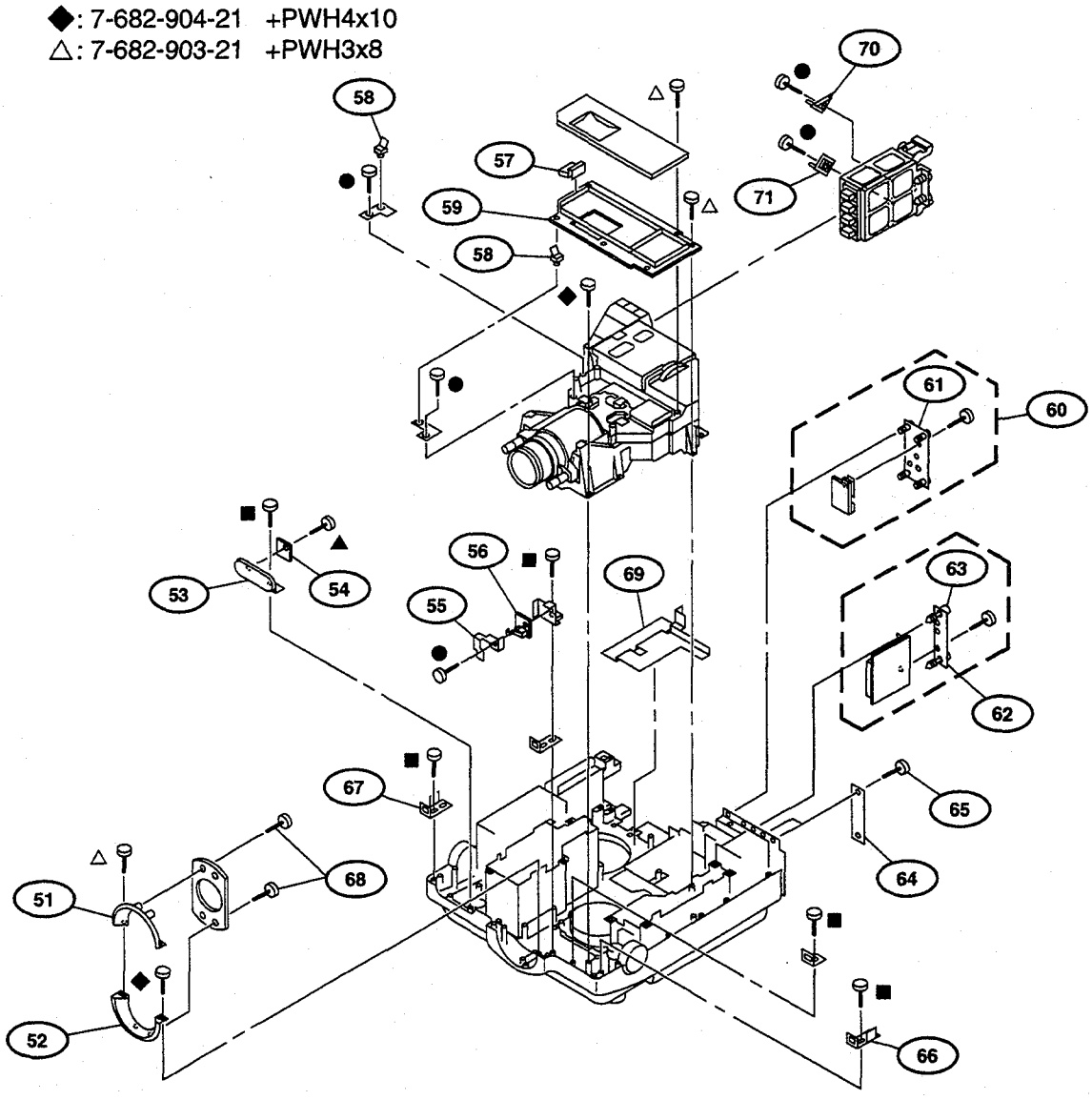
●: 7-682-148-01 +P3x8
▲: 7-685-647-79 +BVTP3x10
▼: 7-627-553-17 +P2x2
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
★: 7-685-648-79 +BVTP3x12
○: 7-682-546-04 +P3x5
△: 7-682-903-21 +PWH3x8
✠: 7-682-903-41 +PWH3x12
☼: 7-685-651-79 +BVTP3x20
☆: 7-685-133-01 +P2.6x6



REF NO.		PART NO.	DESCRIPTION	REMARK
1	*	A-1484-218-A	COVER BLOCK ASSY, LENS	2
2	*	4-056-505-01	RING, RUBBER	
3	*	4-068-049-01	FSTENER	
4	*	X-4036-263-1	HOOD ASSY	2,3
5		1-504-673-11	SPEAKER (12.6X5.7CM)	
6	*	4-068-058-01	HOLDER (B), HOOD	
7	*	4-068-050-01	BRACKET (A), CABINET	
8	*	4-068-087-01	PLATE(C), FASNER	
9	*	4-068-064-01	GASKET (L)	
10	*	4-068-065-01	GASKET (S)	
11	*	A-1375-180-A	H COMPL	
12	*	4-068-138-01	SPCER, CONTROL	
13	*	X-4036-254-1	PANEL ASSY, CONTROL	
14	*	1-670-890-11	PWB, UA	
15	*	4-068-154-01	PANEL, REAR	
16	*	4-068-103-01	GUARD (C), LIGHTING	
17	*	X-4036-257-1	LID ASSY, LAMP	
18		4-055-964-01	HINGE, BLIND	
19		3-728-267-01	COVER, 3.5 JACK	
20	*	3-673-948-11	CAP, DUST	
21	*	A-1306-561-A	M COMPL	22
22	*	X-4036-255-1	PANEL (M) ASSY, REAR	
23		4-068-331-01	SHEET (A), HEAT	
24	*	4-068-465-01	GUARD (L), LIGHTING	
25	*	4-068-402-01	GUARD (H), LIGHTING	
26	*	4-068-464-01	GUARD (K), LIGHTING	
27	*	4-068-822-01	SHEET, FILTER	
28	*	4-068-403-01	GUARD (I), LIGHTING	

6-2. CHASSIS BLOCK 1

●: 7-682-148-01 +P3x8
▲: 7-685-647-79 +BVTP3x10
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
△: 7-682-903-21 +PWH3x8

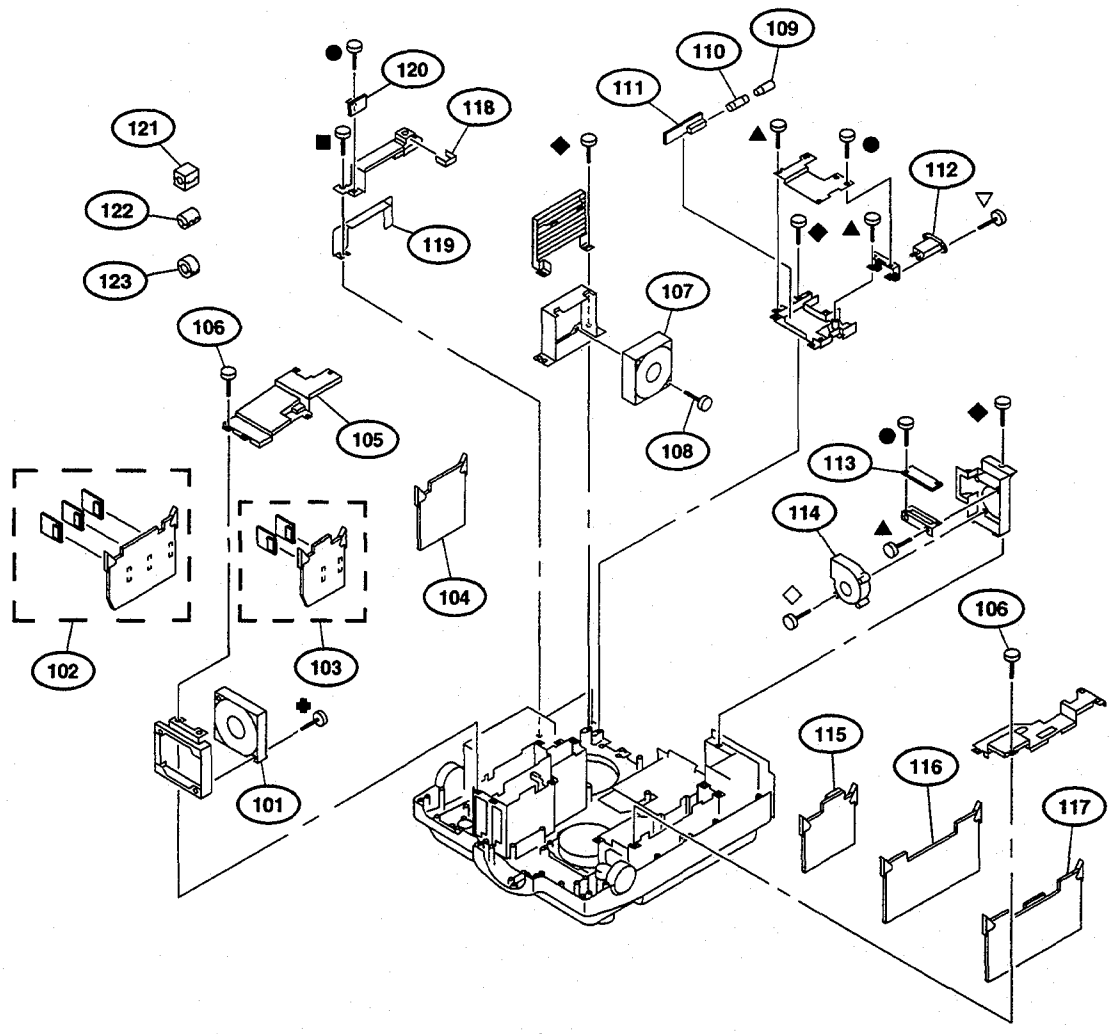


REF NO.		PART NO.	DESCRIPTION	REMARK
51		4-068-167-01	RING (A), LENS	
52		4-068-168-01	RING (B), LENS	
53	*	X-4036-251-1	WINDOW (F) ASSY, AF	
54	*	A-1390-881-A	N MOUNT	
55	*	4-068-067-02	SPRING, UC	
56	*	1-670-895-11	PWB, UC	
57	*	4-068-799-01	SPRING (CG)	
58	*	3-696-440-11	HOLDER (B), PC BOARD	
59	*	A-1335-104-A	C COMPL	
60	*	A-1275-161-A	QB COMPL(X2000U/X2000M)	61
	*	A-1275-166-A	QB COMPL(IFB-X2000E)(X2000E)	61

REF NO.		PART NO.	DESCRIPTION	REMARK
61	*	X-4036-248-1	PANEL (QB) ASSY, REAR (X2000U/X2000M)	
	*	X-4036-245-1	PANEL (QB/E) ASSY, REAR (IFB-X2000E) (X2000E)	
62	*	A-1275-160-A	QA COMPL	63
63	*	X-4036-247-1	PANEL (QA) ASSY, REAR	
64		4-035-771-01	PLATE, BLIND	
65		4-396-203-01	SCREW (+B M3X12), PREVENTION	
66	*	4-069-085-01	BRACKET (C), FRONT	
67	*	4-069-086-01	BRACKET (D), FRONT	
68		4-068-063-02	SCREW, WASHER	
69		4-068-536-03	GUARD (M), LIGHTING	
70		4-068-109-01	BUSHING (B), LAMP	
71		4-068-108-01	BUSHING (A), LAMP	

6-3. CHASSIS BLOCK 2

●: 7-682-148-01 +P3x8
▲: 7-685-647-79 +BVTP3x10
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
✚: 7-685-166-01 +PTP4x30
▽: 7-682-247-09 +K3x6
◇: 7-685-167-19 WASHER HEAD SCREW +P4x35

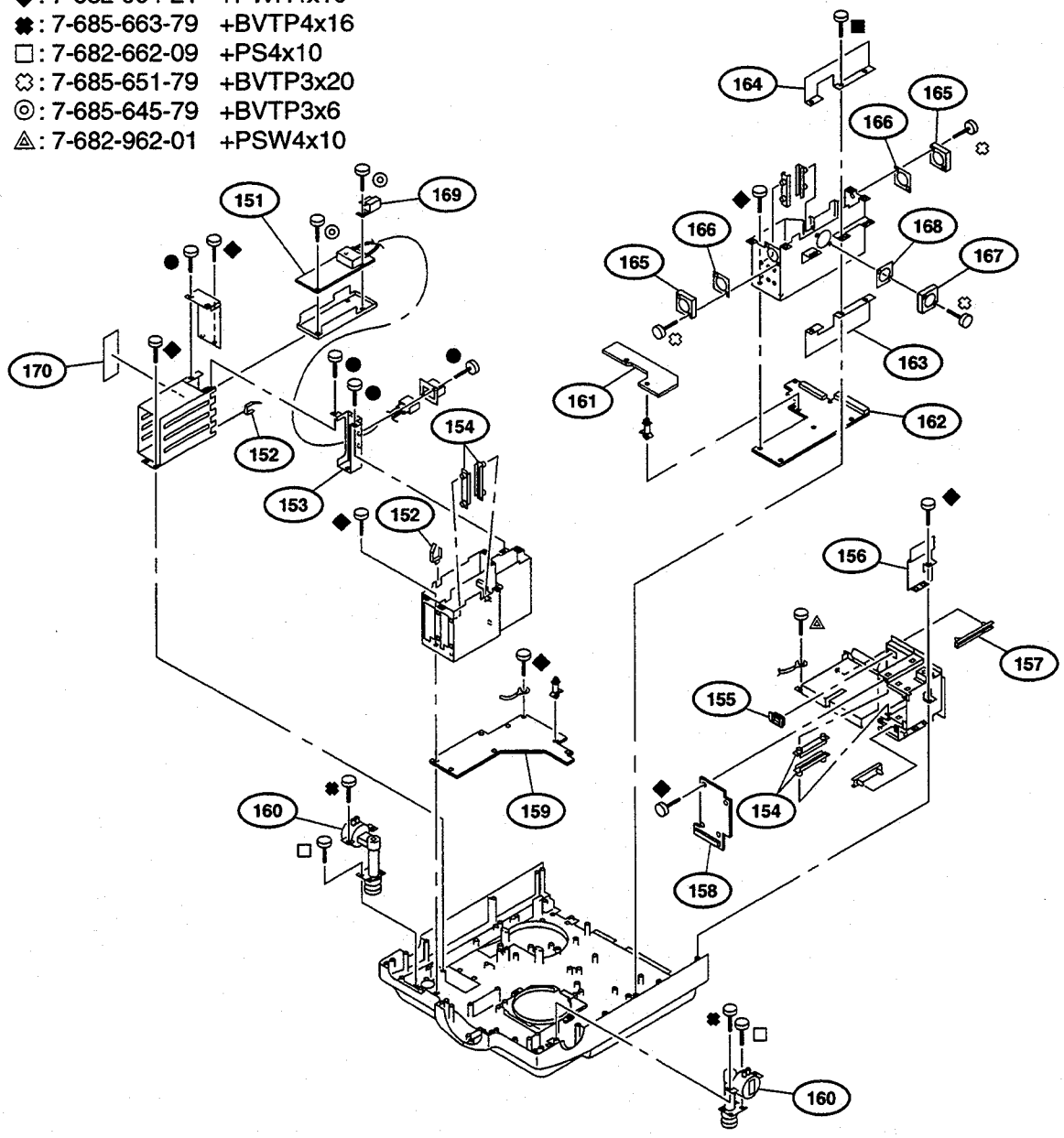


REF NO.		PART NO.	DESCRIPTION	REMARK
101		1-763-257-11	FAN, DC	
102	*	A-1316-401-A	GAA COMPL	
103	*	A-1316-402-A	GAB COMPL	
104	*	A-1316-403-A	GB COMPL	
105	*	X-4036-250-2	COVER ASSY, G	
106		4-067-823-01	SCREW (+PWH M4X12)	
107		1-763-260-11	FAN, DC	
108		4-068-057-01	SCREW (4X45), PWH TAPPING	
109		1-533-702-11	HOLDER, FUSE(X2000E/X2000M)	
	*	1-533-703-11	HOLDER, FUSE(X2000U)	
110	⚠	1-576-233-11	FUSE (H.B.C.) (5A/250V) (X2000E/X2000M)	
	⚠	1-533-694-11	FUSE (5A/250V) (X2000U)	

REF NO.		PART NO.	DESCRIPTION	REMARK
111	*	1-670-882-11	PWB, GF	
112	⚠	1-785-591-11	INLET, AC	
113	*	A-1390-906-A	XC MOUNT	
114		1-763-238-11	FAN, DC	
115	*	A-1135-954-A	BC COMPL	
116	*	A-1135-952-A	BA COMPL	
117	*	A-1135-953-A	BB COMPL	
118	*	4-068-404-01	GUARD (J), LIGHTING	
119	*	4-068-102-01	GUARD (B), LIGHTING	
120	*	1-670-892-11	PWB, V	
121		1-500-037-11	CORE, FERRITE (WITH CASE)	
122		1-500-051-11	BEAD, FERRITE (WITH CASE)	
123		1-543-947-11	CORE, FERRITE	

6-4. CHASSIS BLOCK 3

●: 7-682-148-01 +P3x8
■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
✱: 7-685-663-79 +BVTP4x16
□: 7-682-662-09 +PS4x10
☼: 7-685-651-79 +BVTP3x20
◎: 7-685-645-79 +BVTP3x6
△: 7-682-962-01 +PSW4x10

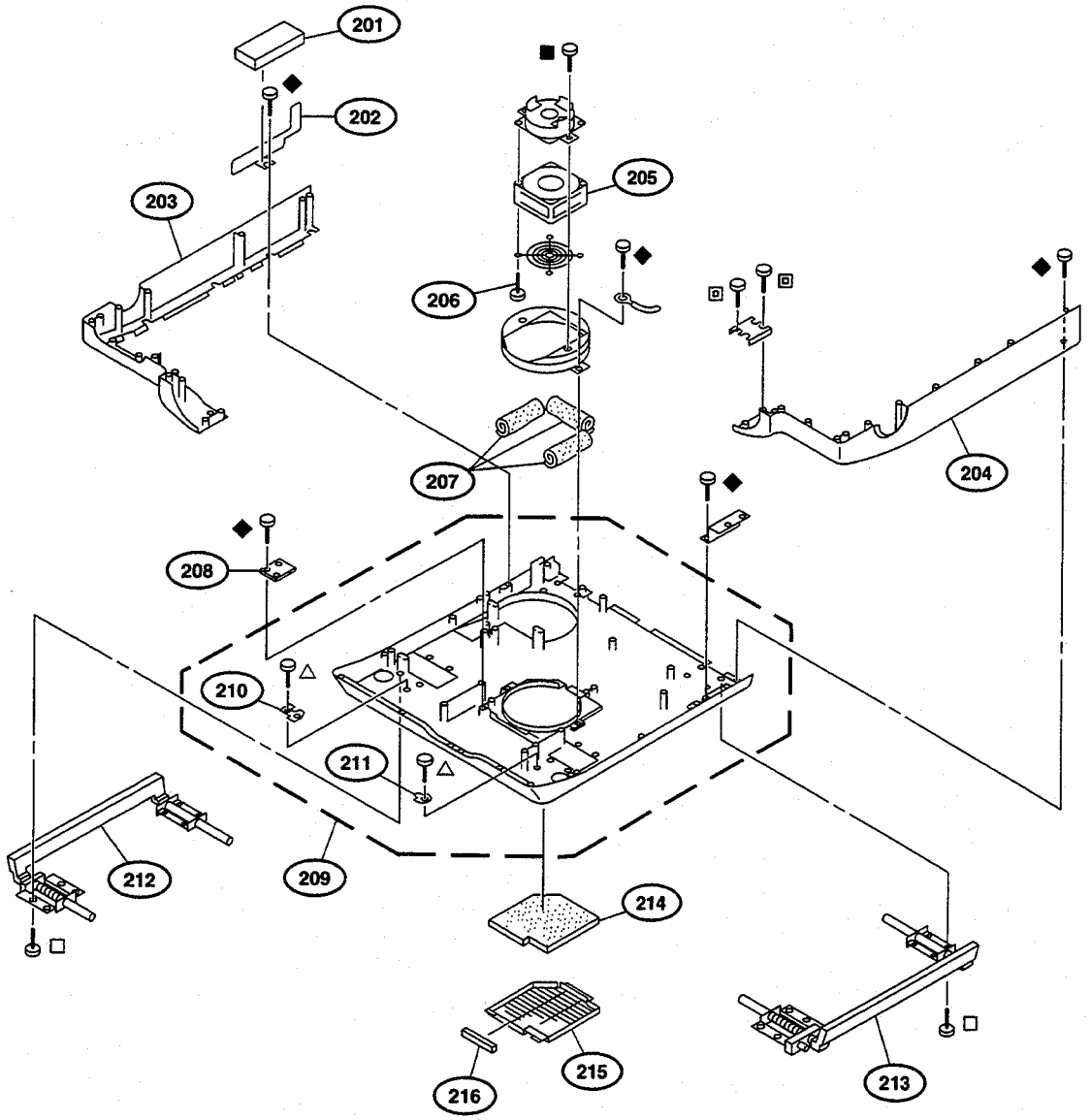


REF NO.		PART NO.	DESCRIPTION	REMARK
151	△	1-468-286-11	POWER BLOCK	
152	*	4-316-015-00	HOLDER, WIRE	
153	*	4-068-176-02	PLATE, PLUG	
154	*	4-360-309-11	SUPPORT, PC BOARD	
155	*	4-056-414-01	BUSHING, SQUARE	
156	*	4-068-104-01	GUARD (D), LIGHTING	
157		4-055-970-01	RAIL (S), PC BOARD GUIDE	
158	*	A-1390-879-A	XA MOUNT	
159	*	A-1311-694-A	GM MOUNT	
160		4-068-172-01	ADJUSTOR	

REF NO.		PART NO.	DESCRIPTION	REMARK
161	*	A-1390-880-A	XB MOUNT	
162	*	A-1131-349-A	BM MOUNT	
163	*	4-068-169-01	GUARD (E), LIGHTING	
164	*	4-068-170-01	GUARD (F), LIGHTING	
165		1-763-256-11	FAN, DC	
166		4-068-976-01	SPACER (B1)	
167		1-763-259-11	FAN, DC	
168		4-068-977-01	SPACER (B2)	
169		4-068-646-01	SHEET (BRA)	
170	*	4-068-537-01	GUARD (N), LIGHTING	

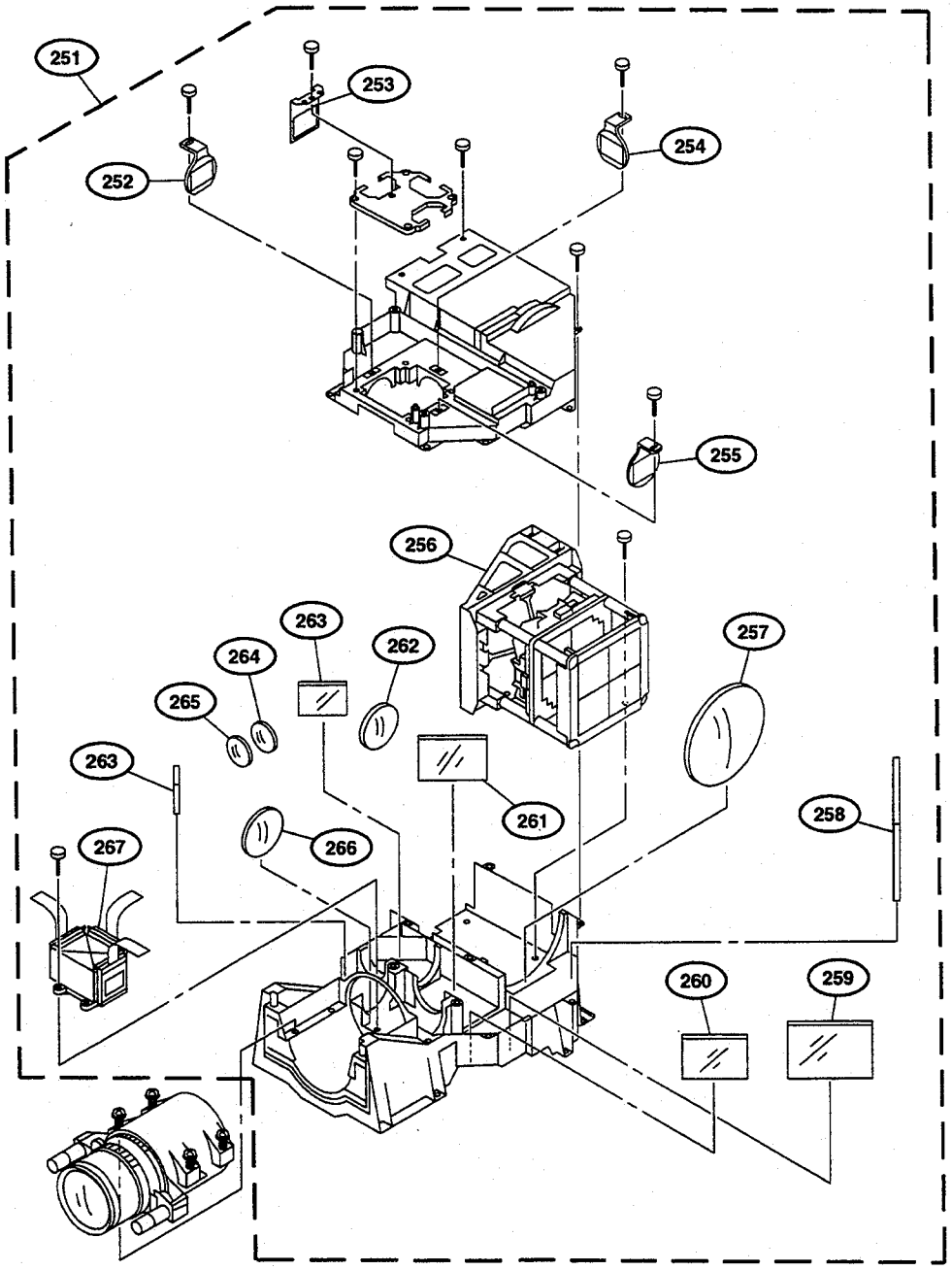
6-5. BASE BLOCK

■: 7-685-660-11 +BVTP4x10
◆: 7-682-904-21 +PWH4x10
△: 7-682-903-21 +PWH3x8
□: 7-682-662-09 +PS4x10
⧈: 7-682-660-19 +BVTP4x10



REF NO.		PART NO.	DESCRIPTION	REMARK
201		4-068-062-01	SHEET (B), CUSHION	
202	*	4-068-101-01	GUARD (A), LIGHTING	
203	*	4-068-148-02	PANEL (L), SIDE	
204	*	4-068-147-02	PANEL (R), SIDE	
205		1-763-274-11	FAN, DC	
206		4-068-057-01	SCREW (4X45), PWH TAPPING	
207		4-068-061-01	SHEET (A), CUSHION	
208	*	1-670-890-11	PWB, UB	
209	*	X-4036-258-1	BASE ASSY	210, 211
210	*	4-068-329-01	COVER (A), HOLE	
211	*	4-068-330-01	COVER (B), HOLE	
212	*	4-068-150-01	HANDLE (R)	
213	*	4-068-149-01	HANDLE (L)	
214		4-068-043-02	FILTER, FAN	
215		4-068-144-02	COVER, FILTER	
216	*	4-068-822-01	SHEET, FILTER	

6-6. OPTICAL BLOCK



REF NO.		PART NO.	DESCRIPTION	REMARK
251		1-758-234-11	OPTICAL UNIT	252-267
252		9-881-930-01	RED DEFLECTION PLATE	
253		9-881-936-01	RED STANDARD DUMMY GLASS	
253		9-881-937-01	RED TELE ZOOM DUMMY GLASS	
254		9-881-924-01	GREEN DEFLECTION PLATE/CAPACITOR LENS	
255		9-881-925-01	BLUE DEFLECTION PLATE/CAPACITOR LENS	
256	*	9-881-923-01	FLYEYE/PS CONVERTER BLOCK	
257	*	9-881-922-01	MAIN CAPACITOR LENS	
258	*	9-881-931-01	MIRROR A	
259	*	9-881-934-01	GR REFLECTION DICHROIC MIRROR	
260	*	9-881-932-01	MIRROR B	
261	*	9-881-935-01	G RFLECTION DOCHROIC MIRROR	
262	*	9-881-926-01	RELAY LENS A	
263	*	9-881-933-01	MIRROR C	
264	*	9-881-927-01	RELAY LENS B	
265	*	9-881-928-01	RELAY LENS C	
266	*	9-881-929-01	RED CAPACITOR LENS	
267		1-758-274-11	PRISM BLOCK	

SECTION 7
ELECTRICAL PARTS LIST

BA

NOTE :

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- PF : μμF

When indicating parts by reference number, please include the board name.

REF NO.	PART NO.	DESCRIPTION			REMARK
	* A-1135-952-A	BA COMPL			
		********			
	3-179-084-01	LEVER (R), PC BOARD			
	3-179-085-01	LEVER (L), PC BOARD			
	4-904-679-01	HEAT SINK (IC)			
		<CAPACITOR>			
C1001	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1002	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1003	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1004	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1005	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1006	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1007	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1008	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1009	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1010	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1011	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1012	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1013	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1014	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1015	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1016	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1017	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1018	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1019	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1020	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1021	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1022	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1023	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1024	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1025	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1026	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1027	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1028	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1029	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1030	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1031	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1032	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1033	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1034	1-164-161-11	CERAMIC CHIP	0.0022MF	10% 50V	
C1035	1-164-161-11	CERAMIC CHIP	0.0022MF	10% 50V	
C1036	1-164-161-11	CERAMIC CHIP	0.0022MF	10% 50V	
C1037	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1038	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1039	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1040	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1041	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1042	1-128-007-11	ELECT CHIP	2.2MF	20% 35V	
C1043	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1044	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1045	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1046	1-163-239-11	CERAMIC CHIP	33PF	5% 50V	
C1047	1-163-239-11	CERAMIC CHIP	33PF	5% 50V	
C1048	1-163-239-11	CERAMIC CHIP	33PF	5% 50V	
C1049	1-126-204-11	ELECT CHIP	47MF	20% 16V	
C1050	1-126-205-11	ELECT CHIP	47MF	20% 6.3V	
C1051	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1052	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1053	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1054	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1055	1-117-681-11	ELECT CHIP	100MF	20% 16V	
C1057	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1058	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1059	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1060	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1061	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1064	1-117-681-11	ELECT CHIP	100MF	20% 16V	
C1065	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1066	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1067	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1068	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1069	1-126-204-11	ELECT CHIP	47MF	20% 16V	
C1070	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1075	1-128-004-11	ELECT CHIP	10MF	20% 16V	
C1076	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1080	1-163-222-11	CERAMIC CHIP	5PF	0.25PF 50V	
C1081	1-163-222-11	CERAMIC CHIP	5PF	0.25PF 50V	
C1082	1-163-222-11	CERAMIC CHIP	5PF	0.25PF 50V	
C1086	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1087	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1088	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1089	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1090	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1091	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	

BA

REF NO.	PART NO.	DESCRIPTION				REMARK
C1092	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1093	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1094	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1095	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1096	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1097	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1098	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1099	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1100	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1101	1-126-395-11	ELECT CHIP	22MF	20%	16V	
C1102	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1106	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1109	1-126-395-11	ELECT CHIP	22MF	20%	16V	
C1110	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1111	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1112	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1113	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1114	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1115	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1116	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1117	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1118	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1119	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1120	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1121	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1122	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1123	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1124	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1125	1-163-089-00	CERAMIC CHIP	6PF	0.5PF	50V	
C1126	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1128	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C1129	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1130	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1131	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1132	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1133	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1134	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1135	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1136	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1137	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C1138	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V	
C1139	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1140	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1141	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1142	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1143	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C1144	1-128-396-11	ELECT CHIP	470MF	20%	10V	
C1145	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1146	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C1147	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1148	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1149	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1150	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1151	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1152	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V	
C1153	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1154	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1155	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C1156	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1157	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1158	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1159	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C1160	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1161	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1162	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1163	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1164	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1165	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1166	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1167	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1168	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1169	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1201	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1203	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1204	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1205	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1207	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1208	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1209	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1210	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1211	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1212	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1213	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1214	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1215	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1216	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1217	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1218	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1219	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C1251	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1252	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1253	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C1254	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1255	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1256	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1257	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1258	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1259	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1260	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1261	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1262	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1263	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1265	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1267	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1268	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1270	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1271	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1272	1-128-007-11	ELECT CHIP	2.2MF	20%	35V	
C1273	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1274	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1275	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1276	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1278	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1279	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C1280	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1281	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1282	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1283	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1284	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1287	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1289	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1290	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1291	1-128-396-11	ELECT CHIP	470MF	20%	10V	
C1292	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1293	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1294	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1295	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1297	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1298	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1299	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C1300	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C1301	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C1302	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C1303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1304	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1305	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1306	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C1307	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1308	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C1309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1310	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1311	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1312	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1313	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1314	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1315	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1316	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1317	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1318	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1319	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1320	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1321	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1401	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1402	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1403	1-109-982-11	CERAMIC CHIP	1MF	10%	10V	
C1404	1-109-982-11	CERAMIC CHIP	1MF	10%	10V	
C1405	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1406	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1408	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1409	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1410	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1411	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1412	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1413	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C1414	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1415	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C1416	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1417	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C1418	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1419	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C1420	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C1421	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C1422	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C1423	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C1424	1-109-982-11	CERAMIC CHIP	1MF	10%	10V	
C1425	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1426	1-128-396-11	ELECT CHIP	470MF	20%	10V	
C1427	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V	
C1428	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V	
C1429	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1430	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C1431	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1432	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1433	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1434	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1435	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1436	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1437	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1438	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1439	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C1441	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1442	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1443	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1444	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1445	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1446	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1447	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1448	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1449	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1450	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1451	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1452	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1453	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1454	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1455	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1456	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1457	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1458	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1459	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1460	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1461	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1462	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1463	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1464	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1465	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1466	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1467	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1468	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1469	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1470	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1471	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1472	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1473	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1474	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1475	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1476	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1477	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1478	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1479	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1480	1-126-204-11	ELECT CHIP	47MF	20%	16V	

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REF NO.	PART NO.	DESCRIPTION				REMARK
C1484	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1485	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1486	1-163-089-00	CERAMIC CHIP	6PF	0.5PF	50V	
C1487	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1488	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1489	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1490	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1491	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1494	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1495	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1496	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1497	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1498	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1499	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1500	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1501	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1610	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1611	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1612	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1613	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1614	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1615	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1616	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1617	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1619	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1622	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1624	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1625	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1626	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1627	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1628	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C1629	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1630	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1631	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1632	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1633	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1634	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1635	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1636	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1637	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1638	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C1639	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1640	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1641	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1642	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1643	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1644	1-107-682-11	CERAMIC CHIP	1MF	10%	16V	
C1648	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1649	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1751	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1752	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1753	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1754	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1755	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1756	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1757	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1758	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1759	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C1760	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1761	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1762	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1763	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1764	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1765	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1766	1-128-013-11	ELECT CHIP	1MF	20%	50V	
C1767	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1768	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1769	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1770	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1771	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1772	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1773	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1774	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1775	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1776	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C1777	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C1778	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C1779	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1780	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1781	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1782	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1783	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1784	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1785	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1786	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C1787	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1788	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1789	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1901	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1902	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1903	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1904	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1905	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C1906	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1907	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1908	1-109-982-11	CERAMIC CHIP	1MF	10%	10V	
C1909	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C1910	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1911	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1912	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1913	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1914	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1915	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C1916	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1917	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1918	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1919	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1920	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1922	1-163-143-00	CERAMIC CHIP	0.0012MF	5%	50V	
C1923	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V	
C1924	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1925	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1926	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1927	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1928	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1929	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1930	1-128-004-11	ELECT CHIP	10MF	20%	16V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C1931	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1932	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1933	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1934	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1935	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1936	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1937	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1938	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1939	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1940	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C1941	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1942	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1943	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C1944	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1945	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1946	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1947	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1948	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1949	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1950	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1951	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1952	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1953	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1954	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1955	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1956	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C1957	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C1958	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1959	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1960	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1961	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1962	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1963	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1964	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1965	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C1968	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1969	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1970	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9001	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9002	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C9003	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9004	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C9006	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C9007	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9008	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9009	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9010	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9011	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9013	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9016	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9017	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C9018	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9019	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9020	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9021	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C9022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9023	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9024	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9026	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9027	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9028	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9030	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C9031	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9032	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C9033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9035	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9037	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9038	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	
C9039	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9040	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9041	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9042	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9043	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9044	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9045	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9046	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9047	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C9048	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9049	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C9050	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C9051	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9052	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9053	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9054	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9055	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9056	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9057	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9058	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9059	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9060	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	
C9061	1-128-006-11	ELECT CHIP	4.7MF	20%	25V	
C9062	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9063	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9101	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9102	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9103	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9104	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9106	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9109	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9110	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9111	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9113	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9114	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9115	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9116	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9117	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

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REF NO.	PART NO.	DESCRIPTION				REMARK
C9118	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9119	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9120	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9121	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9122	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9123	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9125	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9126	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9127	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9128	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9129	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9130	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9131	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9132	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9133	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9134	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9135	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9136	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9137	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9138	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9139	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9201	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9203	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9204	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9207	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9208	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9210	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9212	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9214	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9215	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9216	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9217	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9218	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9219	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9220	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9221	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9223	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9225	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9226	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9227	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9228	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9229	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C9230	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9231	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9232	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C9235	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9236	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9237	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	
C9238	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9239	1-126-205-11	ELECT CHIP	47MF	20%	6.3V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C9247	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9249	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9250	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C9251	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9252	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C9253	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
		<CONNECTOR>				
CN1901	* 1-785-559-11	CONNECTOR, BOARD TO BOARD 140P				
		<DIODE>				
D1001	8-719-800-76	DIODE 1SS226				
D1002	8-719-800-76	DIODE 1SS226				
D1003	8-719-800-76	DIODE 1SS226				
D1101	8-719-801-78	DIODE 1SS184				
D1401	8-719-914-43	DIODE DAN202K				
D1901	8-719-914-43	DIODE DAN202K				
D9001	8-719-422-12	DIODE MA8039				
		<FERRITE BEAD>				
FB1251	1-414-753-91	INDUCTOR	4.7µH			
FB1252	1-543-775-11	FERRITE	0µH			
FB1253	1-543-775-11	FERRITE	0µH			
FB1254	1-543-775-11	FERRITE	0µH			
FB1255	1-414-753-91	INDUCTOR	4.7µH			
FB1256	1-414-753-91	INDUCTOR	4.7µH			
FB1257	1-414-234-22	INDUCTOR CHIP	0µH			
FB1258	1-414-234-22	INDUCTOR CHIP	0µH			
FB1259	1-414-234-22	INDUCTOR CHIP	0µH			
FB1260	1-414-234-22	INDUCTOR CHIP	0µH			
FB1261	1-414-234-22	INDUCTOR CHIP	0µH			
FB1262	1-414-234-22	INDUCTOR CHIP	0µH			
FB1263	1-414-234-22	INDUCTOR CHIP	0µH			
FB9201	1-414-234-22	INDUCTOR CHIP	0µH			
FB9202	1-414-234-22	INDUCTOR CHIP	0µH			
		<FILTER>				
FL1101	1-239-289-11	FILTER, LOW PASS				
FL1102	1-239-289-11	FILTER, LOW PASS				
FL1103	1-239-289-11	FILTER, LOW PASS				
FL1251	1-233-450-11	FILTER, LOW PASS				
FL1252	1-233-450-11	FILTER, LOW PASS				
FL1253	1-239-847-11	FILTER, LOW PASS				
FL1254	1-239-847-11	FILTER, LOW PASS				
FL1401	1-233-505-21	FILTER, LOW PASS				
FL1402	1-233-504-21	FILTER, LOW PASS				
FL1403	1-233-504-21	FILTER, LOW PASS				
FL9201	1-233-876-11	FILTER, LOW PASS				
FL9202	1-233-876-11	FILTER, LOW PASS				
FL9203	1-233-878-11	FILTER, LOW PASS				
		<IC>				
IC1001	8-752-052-77	IC CXA1450M				
IC1002	8-752-052-77	IC CXA1450M				
IC1003	8-752-052-77	IC CXA1450M				
IC1004	8-759-470-51	IC MB88141APFV-ER				
IC1005	8-759-431-38	IC MAX4121CSA-TE2				
IC1006	8-759-431-38	IC MAX4121CSA-TE2				

REF NO.	PART NO.	DESCRIPTION	REMARK
IC1007	8-759-431-38	IC MAX4121CSA-TE2	
IC1008	8-759-470-51	IC MB88141APFV-ER	
IC1009	8-759-543-16	IC EL4093CS-TE2	
IC1010	8-759-543-16	IC EL4093CS-TE2	
IC1011	8-759-543-16	IC EL4093CS-TE2	
IC1012	8-759-460-74	IC BA05FP-E2	
IC1013	8-759-460-74	IC BA05FP-E2	
IC1014	8-759-460-81	IC BA12FP-E2	
IC1016	8-759-460-79	IC BA09FP-E2	
IC1017	8-759-388-31	IC PQ20VZ1U	
IC1101	8-752-068-45	IC CXA1855Q	
IC1102	8-759-710-29	IC NJM2235M	
IC1103	8-759-711-62	IC NJM2240M	
IC1104	8-752-372-78	IC CXD2024AQ	
IC1105	8-759-353-02	IC NJM2533M(TE2)	
IC1106	8-759-353-02	IC NJM2533M(TE2)	
IC1251	8-759-269-92	IC SN74HCU04ANS-E20	
IC1252	8-759-568-27	IC MSM514265C-60JSDR1	
IC1253	8-759-161-24	IC µPC659AGS-E2	
IC1254	8-759-536-12	IC µPD64081BGF-3BA	
IC1401	8-759-565-20	IC TDA4665T/V5-118	
IC1402	8-759-295-47	IC TDA9141-N2C	
IC1403	8-759-335-57	IC MM1112XF	
IC1404	8-759-335-57	IC MM1112XF	
IC1405	8-759-058-62	IC TC7S08FU(TE85R)	
IC1406	8-759-344-12	IC GS4981CTA	
IC1407	8-759-082-58	IC TC7W08FU	
IC1408	8-759-082-57	IC TC7W04FU	
IC1409	8-759-008-45	IC MC74HC4538F	
IC1410	8-752-082-49	IC CXA2119M	
IC1601	8-752-072-88	IC CXA2011Q	
IC1602	8-752-070-54	IC CXA1839Q-T6	
IC1751	8-752-053-19	IC CXA1166K	
IC1752	8-752-053-19	IC CXA1166K	
IC1753	8-752-053-19	IC CXA1166K	
IC1754	8-759-331-71	IC NJM4558E(TE2)	
IC1755	8-759-530-57	IC TLV431ACDBV2	
IC1901	8-759-195-81	IC TC7S86FU	
IC1902	8-759-981-48	IC TL082M	
IC1903	8-759-092-82	IC SN75157PS-ELL2000	
IC1904	8-759-058-58	IC TC7S04FU(TE85R)	
IC1905	8-752-083-73	IC CXA3106AQ	
IC1906	8-759-012-02	IC MC10H124M	
IC1907	8-759-543-15	IC MC100EL91DWR2	
IC1908	8-759-422-51	IC MC10H101MEL	
IC1909	8-759-285-61	IC PC74HC123D-T	
IC1910	8-759-563-11	IC CXD8773R	
IC1911	8-759-186-77	IC TC74VHC541F	
IC1912	8-759-082-58	IC TC7W08FU	
IC1914	8-759-058-62	IC TC7S08FU(TE85R)	
IC1915	8-759-196-97	IC TC7SH32FU-TE85R	
IC1916	8-759-058-62	IC TC7S08FU(TE85R)	
IC1917	8-759-058-62	IC TC7S08FU(TE85R)	
IC9001	8-759-295-09	IC TLC2932IPW	
IC9003	8-759-467-20	IC CXD8675R	
IC9004	8-759-430-32	IC TLC2933IPW-E20	
IC9005	8-759-285-61	IC PC74HC123D-T	
IC9006	8-759-447-90	IC TLC5733AIPM	
IC9101	8-759-422-80	IC MN47V77ST1	
IC9102	8-759-422-80	IC MN47V77ST1	
IC9103	8-752-386-52	IC CXD2070Q	
IC9104	8-759-393-55	IC MC74F244MEL	
IC9105	8-759-393-55	IC MC74F244MEL	
IC9106	8-752-384-06	IC CXD2062Q	
IC9201	8-752-386-47	IC CXD2071R	
IC9202	8-759-485-79	IC TC7SET08FU(TE85L)	
IC9203	8-759-485-79	IC TC7SET08FU(TE85L)	
IC9204	8-752-053-21	IC CXA1211M	

<COIL>

L1001	1-412-525-31	INDUCTOR	10µH
L1002	1-412-525-31	INDUCTOR	10µH
L1003	1-412-525-31	INDUCTOR	10µH
L1004	1-412-525-31	INDUCTOR	10µH
L1005	1-412-525-31	INDUCTOR	10µH
L1006	1-412-058-11	INDUCTOR CHIP	10µH
L1008	1-412-058-11	INDUCTOR CHIP	10µH
L1101	1-412-058-11	INDUCTOR CHIP	10µH
L1102	1-412-058-11	INDUCTOR CHIP	10µH
L1103	1-412-058-11	INDUCTOR CHIP	10µH
L1104	1-412-058-11	INDUCTOR CHIP	10µH
L1105	1-412-058-11	INDUCTOR CHIP	10µH
L1106	1-412-058-11	INDUCTOR CHIP	10µH
L1251	1-410-200-31	INDUCTOR CHIP	4.7µH
L1252	1-412-058-11	INDUCTOR CHIP	10µH
L1253	1-414-753-91	INDUCTOR	4.7µH
L1254	1-414-753-91	INDUCTOR	4.7µH
L1255	1-412-058-11	INDUCTOR CHIP	10µH
L1256	1-412-058-11	INDUCTOR CHIP	10µH
L1401	1-412-058-11	INDUCTOR CHIP	10µH
L1402	1-412-058-11	INDUCTOR CHIP	10µH
L1403	1-412-058-11	INDUCTOR CHIP	10µH
L1404	1-414-235-22	INDUCTOR CHIP	0µH
L1405	1-412-058-11	INDUCTOR CHIP	10µH
L1406	1-414-235-22	INDUCTOR CHIP	0µH
L1407	1-412-796-41	INDUCTOR	47µH
L1408	1-412-058-11	INDUCTOR CHIP	10µH
L1409	1-414-754-11	INDUCTOR	10µH
L1411	1-412-058-11	INDUCTOR CHIP	10µH
L1602	1-412-058-11	INDUCTOR CHIP	10µH
L1603	1-412-058-11	INDUCTOR CHIP	10µH
L1604	1-412-058-11	INDUCTOR CHIP	10µH
L1901	1-412-058-11	INDUCTOR CHIP	10µH
L1902	1-412-058-11	INDUCTOR CHIP	10µH
L1903	1-412-058-11	INDUCTOR CHIP	10µH
L1904	1-412-058-11	INDUCTOR CHIP	10µH
L1905	1-412-058-11	INDUCTOR CHIP	10µH
L1906	1-412-058-11	INDUCTOR CHIP	10µH
L1907	1-412-058-11	INDUCTOR CHIP	10µH
L9001	1-414-754-11	INDUCTOR	10µH
L9002	1-414-757-11	INDUCTOR	100µH
L9003	1-414-754-11	INDUCTOR	10µH
L9004	1-414-757-11	INDUCTOR	100µH
L9005	1-414-757-11	INDUCTOR	100µH
L9006	1-414-757-11	INDUCTOR	100µH
L9007	1-414-757-11	INDUCTOR	100µH
L9008	1-414-754-11	INDUCTOR	10µH
L9009	1-414-754-11	INDUCTOR	10µH

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REF NO.	PART NO.	DESCRIPTION	REMARK
L9010	1-414-754-11	INDUCTOR 10µH	
L9011	1-414-754-11	INDUCTOR 10µH	
L9012	1-414-754-11	INDUCTOR 10µH	
L9101	1-414-754-11	INDUCTOR 10µH	
L9102	1-414-754-11	INDUCTOR 10µH	
L9103	1-414-754-11	INDUCTOR 10µH	
L9104	1-414-754-11	INDUCTOR 10µH	
L9105	1-414-754-11	INDUCTOR 10µH	
L9201	1-414-754-11	INDUCTOR 10µH	
L9202	1-414-754-11	INDUCTOR 10µH	
L9203	1-414-754-11	INDUCTOR 10µH	
		<TRANSISTOR>	
Q1001	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q1002	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q1003	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q1101	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1102	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1103	8-729-422-29	TRANSISTOR 2SD601A-S	
Q1105	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1106	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1107	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1108	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1110	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1111	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1112	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1113	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1114	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1115	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1116	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1117	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1118	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1119	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1120	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1121	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1123	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1124	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1125	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1126	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1127	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1128	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1129	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1251	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1252	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1253	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1254	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1255	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1256	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1257	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1258	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1259	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1260	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1261	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1262	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1263	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1264	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1265	8-729-216-22	TRANSISTOR 2SA1162-G	

REF NO.	PART NO.	DESCRIPTION	REMARK
Q1266	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1267	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1268	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1401	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1402	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1403	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1405	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1406	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1407	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1408	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1409	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1410	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1411	8-729-903-10	TRANSISTOR FMW1	
Q1412	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1413	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1414	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q1415	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1416	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1417	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1418	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1419	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1420	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1422	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1423	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1424	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1425	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1426	8-729-422-29	TRANSISTOR 2SD601A-S	
Q1427	8-729-422-29	TRANSISTOR 2SD601A-S	
Q1428	8-729-422-29	TRANSISTOR 2SD601A-S	
Q1430	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1431	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1432	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1435	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1436	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1437	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1607	8-729-902-96	TRANSISTOR FMS1	
Q1608	8-729-902-96	TRANSISTOR FMS1	
Q1609	8-729-902-96	TRANSISTOR FMS1	
Q1751	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)	
Q1901	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1902	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1903	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1904	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1905	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1906	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1907	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9001	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9002	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9003	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9004	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9205	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9206	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF NO.	PART NO.	DESCRIPTION			REMARK
R1001	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1002	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1003	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1004	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1005	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1006	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1007	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1008	1-216-013-00	RES,CHIP	33	5%	1/10W
R1009	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1010	1-216-025-91	RES,CHIP	100	5%	1/10W
R1011	1-216-025-91	RES,CHIP	100	5%	1/10W
R1012	1-216-025-91	RES,CHIP	100	5%	1/10W
R1013	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1014	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1015	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1016	1-216-009-00	RES,CHIP	22	5%	1/10W
R1017	1-216-009-00	RES,CHIP	22	5%	1/10W
R1018	1-216-009-00	RES,CHIP	22	5%	1/10W
R1019	1-216-025-91	RES,CHIP	100	5%	1/10W
R1020	1-216-025-91	RES,CHIP	100	5%	1/10W
R1021	1-216-025-91	RES,CHIP	100	5%	1/10W
R1022	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1023	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1024	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1025	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1026	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1027	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1028	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1029	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1030	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1031	1-216-013-00	RES,CHIP	33	5%	1/10W
R1032	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1033	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1034	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1035	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1036	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1037	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1038	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1039	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1040	1-216-025-91	RES,CHIP	100	5%	1/10W
R1041	1-216-025-91	RES,CHIP	100	5%	1/10W
R1042	1-216-025-91	RES,CHIP	100	5%	1/10W
R1043	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1044	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1045	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1046	1-216-025-91	RES,CHIP	100	5%	1/10W
R1047	1-216-025-91	RES,CHIP	100	5%	1/10W
R1048	1-216-025-91	RES,CHIP	100	5%	1/10W
R1049	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1050	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1051	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1052	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1053	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1054	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1055	1-216-013-00	RES,CHIP	33	5%	1/10W
R1056	1-216-013-00	RES,CHIP	33	5%	1/10W
R1057	1-216-013-00	RES,CHIP	33	5%	1/10W
R1058	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1060	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1061	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1062	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1063	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1064	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1065	1-216-295-91	SHORT	0		
R1066	1-216-295-91	SHORT	0		
R1067	1-216-025-91	RES,CHIP	100	5%	1/10W
R1071	1-216-295-91	SHORT	0		
R1072	1-216-295-91	SHORT	0		
R1073	1-216-295-91	SHORT	0		
R1077	1-216-295-91	SHORT	0		
R1082	1-216-399-00	METAL OXIDE	6.8	5%	3W F
R1083	1-216-399-00	METAL OXIDE	6.8	5%	3W F
R1084	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R1085	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R1086	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R1101	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1102	1-216-009-00	RES,CHIP	22	5%	1/10W
R1103	1-216-009-00	RES,CHIP	22	5%	1/10W
R1104	1-216-009-00	RES,CHIP	22	5%	1/10W
R1105	1-216-017-91	RES,CHIP	47	5%	1/10W
R1106	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1107	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1108	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1109	1-216-017-91	RES,CHIP	47	5%	1/10W
R1110	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1111	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1112	1-216-037-00	RES,CHIP	330	5%	1/10W
R1113	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1114	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R1115	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1116	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1117	1-216-017-91	RES,CHIP	47	5%	1/10W
R1118	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R1123	1-216-017-91	RES,CHIP	47	5%	1/10W
R1124	1-216-025-91	RES,CHIP	100	5%	1/10W
R1126	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1127	1-216-025-91	RES,CHIP	100	5%	1/10W
R1128	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1129	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1130	1-216-025-91	RES,CHIP	100	5%	1/10W
R1131	1-216-025-91	RES,CHIP	100	5%	1/10W
R1132	1-216-009-00	RES,CHIP	22	5%	1/10W
R1133	1-216-009-00	RES,CHIP	22	5%	1/10W
R1134	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1135	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1136	1-216-017-91	RES,CHIP	47	5%	1/10W
R1137	1-216-025-91	RES,CHIP	100	5%	1/10W
R1138	1-216-025-91	RES,CHIP	100	5%	1/10W
R1139	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1140	1-216-025-91	RES,CHIP	100	5%	1/10W
R1141	1-216-025-91	RES,CHIP	100	5%	1/10W
R1142	1-216-025-91	RES,CHIP	100	5%	1/10W
R1143	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1144	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1145	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R1146	1-216-025-91	RES,CHIP	100	5%	1/10W
R1147	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1148	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R1149	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1150	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1151	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1152	1-216-033-00	RES,CHIP	220	5%	1/10W
R1154	1-216-025-91	RES,CHIP	100	5%	1/10W
R1155	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1156	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1157	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1158	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1159	1-216-047-91	RES,CHIP	820	5%	1/10W
R1160	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1161	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1162	1-216-025-91	RES,CHIP	100	5%	1/10W
R1163	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1164	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1165	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R1166	1-216-017-91	RES,CHIP	47	5%	1/10W
R1167	1-216-041-00	RES,CHIP	470	5%	1/10W
R1168	1-216-017-91	RES,CHIP	47	5%	1/10W
R1169	1-216-017-91	RES,CHIP	47	5%	1/10W
R1170	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1171	1-216-017-91	RES,CHIP	47	5%	1/10W
R1172	1-216-031-00	RES,CHIP	180	5%	1/10W
R1173	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1174	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1175	1-216-031-00	RES,CHIP	180	5%	1/10W
R1176	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1177	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1178	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1179	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1180	1-216-017-91	RES,CHIP	47	5%	1/10W
R1181	1-216-017-91	RES,CHIP	47	5%	1/10W
R1182	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1183	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1184	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1185	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1186	1-216-017-91	RES,CHIP	47	5%	1/10W
R1187	1-216-017-91	RES,CHIP	47	5%	1/10W
R1188	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1189	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1190	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1191	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1192	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1193	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1194	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1195	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1196	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1197	1-216-025-91	RES,CHIP	100	5%	1/10W
R1198	1-216-025-91	RES,CHIP	100	5%	1/10W
R1199	1-216-025-91	RES,CHIP	100	5%	1/10W
R1200	1-216-017-91	RES,CHIP	47	5%	1/10W
R1201	1-216-017-91	RES,CHIP	47	5%	1/10W
R1202	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1203	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1204	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1205	1-216-097-91	RES,CHIP	100K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1206	1-216-013-00	RES,CHIP	33	5%	1/10W
R1207	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1208	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1209	1-216-013-00	RES,CHIP	33	5%	1/10W
R1210	1-216-025-91	RES,CHIP	100	5%	1/10W
R1211	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1212	1-216-017-91	RES,CHIP	47	5%	1/10W
R1252	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1253	1-216-295-91	SHORT	0		
R1256	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1257	1-216-041-00	RES,CHIP	470	5%	1/10W
R1258	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1259	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1260	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1261	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1263	1-216-025-91	RES,CHIP	100	5%	1/10W
R1264	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1265	1-216-025-91	RES,CHIP	100	5%	1/10W
R1266	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1267	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R1268	1-216-023-00	RES,CHIP	82	5%	1/10W
R1269	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R1270	1-216-025-91	RES,CHIP	100	5%	1/10W
R1271	1-216-025-91	RES,CHIP	100	5%	1/10W
R1272	1-216-025-91	RES,CHIP	100	5%	1/10W
R1273	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R1274	1-216-025-91	RES,CHIP	100	5%	1/10W
R1275	1-216-017-91	RES,CHIP	47	5%	1/10W
R1276	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R1277	1-216-025-91	RES,CHIP	100	5%	1/10W
R1278	1-216-025-91	RES,CHIP	100	5%	1/10W
R1279	1-216-025-91	RES,CHIP	100	5%	1/10W
R1280	1-216-025-91	RES,CHIP	100	5%	1/10W
R1283	1-216-295-91	SHORT	0		
R1285	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1286	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1287	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1288	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1289	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1290	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1291	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R1292	1-216-646-11	METAL CHIP	620	0.50%	1/10W
R1293	1-216-295-91	SHORT	0		
R1294	1-216-041-00	RES,CHIP	470	5%	1/10W
R1295	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1296	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1297	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1298	1-216-295-91	SHORT	0		
R1299	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1300	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1301	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1302	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1303	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1304	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1305	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1306	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1307	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R1308	1-216-105-91	RES,CHIP	220K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1309	1-216-025-91	RES,CHIP	100	5%	1/10W
R1310	1-216-295-91	SHORT	0		
R1311	1-216-009-00	RES,CHIP	22	5%	1/10W
R1312	1-216-043-91	RES,CHIP	560	5%	1/10W
R1314	1-216-033-00	RES,CHIP	220	5%	1/10W
R1315	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1316	1-216-047-91	RES,CHIP	820	5%	1/10W
R1317	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1318	1-216-047-91	RES,CHIP	820	5%	1/10W
R1319	1-216-025-91	RES,CHIP	100	5%	1/10W
R1320	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1321	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1322	1-216-075-00	RES,CHIP	12K	5%	1/10W
R1323	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1324	1-216-075-00	RES,CHIP	12K	5%	1/10W
R1325	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1326	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1327	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1328	1-216-295-91	SHORT	0		
R1329	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1330	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1331	1-216-017-91	RES,CHIP	47	5%	1/10W
R1332	1-216-017-91	RES,CHIP	47	5%	1/10W
R1333	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1334	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1335	1-216-025-91	RES,CHIP	100	5%	1/10W
R1401	1-216-017-91	RES,CHIP	47	5%	1/10W
R1402	1-216-017-91	RES,CHIP	47	5%	1/10W
R1403	1-216-017-91	RES,CHIP	47	5%	1/10W
R1404	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1405	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1406	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1407	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1408	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1409	1-216-017-91	RES,CHIP	47	5%	1/10W
R1410	1-216-025-91	RES,CHIP	100	5%	1/10W
R1411	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1412	1-216-025-91	RES,CHIP	100	5%	1/10W
R1413	1-216-025-91	RES,CHIP	100	5%	1/10W
R1414	1-216-025-91	RES,CHIP	100	5%	1/10W
R1415	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1416	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1417	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R1418	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1419	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1420	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1421	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1422	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R1423	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1424	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R1425	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R1426	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1427	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1428	1-216-017-91	RES,CHIP	47	5%	1/10W
R1429	1-216-295-91	SHORT	0		
R1430	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1431	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1432	1-216-017-91	RES,CHIP	47	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1433	1-216-017-91	RES,CHIP	47	5%	1/10W
R1434	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1435	1-216-017-91	RES,CHIP	47	5%	1/10W
R1436	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1437	1-216-017-91	RES,CHIP	47	5%	1/10W
R1438	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1439	1-216-033-00	RES,CHIP	220	5%	1/10W
R1440	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1441	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1442	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1443	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1444	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1445	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1446	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1447	1-216-047-91	RES,CHIP	820	5%	1/10W
R1448	1-216-017-91	RES,CHIP	47	5%	1/10W
R1449	1-216-017-91	RES,CHIP	47	5%	1/10W
R1450	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1451	1-216-017-91	RES,CHIP	47	5%	1/10W
R1452	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1453	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1454	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1455	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1456	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1457	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R1458	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1459	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1460	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1461	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R1462	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1463	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R1464	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1465	1-216-017-91	RES,CHIP	47	5%	1/10W
R1466	1-216-295-91	SHORT	0		
R1467	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1468	1-216-017-91	RES,CHIP	47	5%	1/10W
R1469	1-216-017-91	RES,CHIP	47	5%	1/10W
R1470	1-218-767-11	METAL CHIP	430K	0.50%	1/10W
R1471	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R1472	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R1473	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1475	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1476	1-216-101-00	RES,CHIP	150K	5%	1/10W
R1477	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1478	1-216-017-91	RES,CHIP	47	5%	1/10W
R1482	1-216-017-91	RES,CHIP	47	5%	1/10W
R1483	1-216-017-91	RES,CHIP	47	5%	1/10W
R1484	1-216-017-91	RES,CHIP	47	5%	1/10W
R1485	1-216-017-91	RES,CHIP	47	5%	1/10W
R1486	1-216-017-91	RES,CHIP	47	5%	1/10W
R1487	1-216-017-91	RES,CHIP	47	5%	1/10W
R1488	1-216-017-91	RES,CHIP	47	5%	1/10W
R1489	1-216-017-91	RES,CHIP	47	5%	1/10W
R1490	1-216-017-91	RES,CHIP	47	5%	1/10W
R1491	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1492	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1493	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1494	1-216-085-00	RES,CHIP	33K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R1495	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1496	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1497	1-216-025-91	RES,CHIP	100	5%	1/10W
R1498	1-216-025-91	RES,CHIP	100	5%	1/10W
R1499	1-216-025-91	RES,CHIP	100	5%	1/10W
R1500	1-216-025-91	RES,CHIP	100	5%	1/10W
R1501	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1502	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1503	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1504	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1505	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1506	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1507	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1508	1-216-025-91	RES,CHIP	100	5%	1/10W
R1509	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1510	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1511	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1512	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1513	1-216-025-91	RES,CHIP	100	5%	1/10W
R1514	1-216-025-91	RES,CHIP	100	5%	1/10W
R1515	1-216-037-00	RES,CHIP	330	5%	1/10W
R1516	1-216-037-00	RES,CHIP	330	5%	1/10W
R1517	1-216-037-00	RES,CHIP	330	5%	1/10W
R1526	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1528	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1530	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1535	1-216-295-91	SHORT	0		
R1536	1-216-017-91	RES,CHIP	47	5%	1/10W
R1537	1-216-017-91	RES,CHIP	47	5%	1/10W
R1538	1-216-017-91	RES,CHIP	47	5%	1/10W
R1539	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1540	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1541	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1601	1-216-017-91	RES,CHIP	47	5%	1/10W
R1607	1-216-017-91	RES,CHIP	47	5%	1/10W
R1612	1-216-017-91	RES,CHIP	47	5%	1/10W
R1620	1-216-109-00	RES,CHIP	330K	5%	1/10W
R1621	1-216-017-91	RES,CHIP	47	5%	1/10W
R1622	1-216-077-00	RES,CHIP	15K	5%	1/10W
R1623	1-216-017-91	RES,CHIP	47	5%	1/10W
R1629	1-216-041-00	RES,CHIP	470	5%	1/10W
R1632	1-216-017-91	RES,CHIP	47	5%	1/10W
R1633	1-216-017-91	RES,CHIP	47	5%	1/10W
R1635	1-216-017-91	RES,CHIP	47	5%	1/10W
R1638	1-216-017-91	RES,CHIP	47	5%	1/10W
R1641	1-216-041-00	RES,CHIP	470	5%	1/10W
R1647	1-216-017-91	RES,CHIP	47	5%	1/10W
R1650	1-216-017-91	RES,CHIP	47	5%	1/10W
R1651	1-216-017-91	RES,CHIP	47	5%	1/10W
R1653	1-216-017-91	RES,CHIP	47	5%	1/10W
R1654	1-216-041-00	RES,CHIP	470	5%	1/10W
R1657	1-216-025-91	RES,CHIP	100	5%	1/10W
R1658	1-216-025-91	RES,CHIP	100	5%	1/10W
R1663	1-216-017-91	RES,CHIP	47	5%	1/10W
R1664	1-216-017-91	RES,CHIP	47	5%	1/10W
R1665	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1668	1-216-077-00	RES,CHIP	15K	5%	1/10W
R1669	1-216-017-91	RES,CHIP	47	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1672	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1673	1-216-025-91	RES,CHIP	100	5%	1/10W
R1674	1-216-025-91	RES,CHIP	100	5%	1/10W
R1675	1-216-025-91	RES,CHIP	100	5%	1/10W
R1676	1-216-025-91	RES,CHIP	100	5%	1/10W
R1677	1-216-025-91	RES,CHIP	100	5%	1/10W
R1678	1-216-025-91	RES,CHIP	100	5%	1/10W
R1679	1-216-025-91	RES,CHIP	100	5%	1/10W
R1680	1-216-025-91	RES,CHIP	100	5%	1/10W
R1681	1-216-025-91	RES,CHIP	100	5%	1/10W
R1682	1-216-025-91	RES,CHIP	100	5%	1/10W
R1685	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1686	1-216-009-00	RES,CHIP	22	5%	1/10W
R1687	1-216-009-00	RES,CHIP	22	5%	1/10W
R1688	1-216-009-00	RES,CHIP	22	5%	1/10W
R1754	1-216-295-91	SHORT	0		
R1759	1-216-039-00	RES,CHIP	390	5%	1/10W
R1760	1-216-039-00	RES,CHIP	390	5%	1/10W
R1761	1-216-039-00	RES,CHIP	390	5%	1/10W
R1762	1-216-039-00	RES,CHIP	390	5%	1/10W
R1766	1-216-039-00	RES,CHIP	390	5%	1/10W
R1767	1-216-039-00	RES,CHIP	390	5%	1/10W
R1768	1-216-039-00	RES,CHIP	390	5%	1/10W
R1769	1-216-039-00	RES,CHIP	390	5%	1/10W
R1770	1-216-039-00	RES,CHIP	390	5%	1/10W
R1771	1-216-039-00	RES,CHIP	390	5%	1/10W
R1772	1-216-039-00	RES,CHIP	390	5%	1/10W
R1773	1-216-039-00	RES,CHIP	390	5%	1/10W
R1774	1-216-295-91	SHORT	0		
R1777	1-216-039-00	RES,CHIP	390	5%	1/10W
R1778	1-216-039-00	RES,CHIP	390	5%	1/10W
R1781	1-216-039-00	RES,CHIP	390	5%	1/10W
R1782	1-216-039-00	RES,CHIP	390	5%	1/10W
R1783	1-216-039-00	RES,CHIP	390	5%	1/10W
R1784	1-216-039-00	RES,CHIP	390	5%	1/10W
R1785	1-216-039-00	RES,CHIP	390	5%	1/10W
R1786	1-216-039-00	RES,CHIP	390	5%	1/10W
R1787	1-216-039-00	RES,CHIP	390	5%	1/10W
R1788	1-216-039-00	RES,CHIP	390	5%	1/10W
R1789	1-216-039-00	RES,CHIP	390	5%	1/10W
R1790	1-216-039-00	RES,CHIP	390	5%	1/10W
R1791	1-216-039-00	RES,CHIP	390	5%	1/10W
R1792	1-216-039-00	RES,CHIP	390	5%	1/10W
R1793	1-216-039-00	RES,CHIP	390	5%	1/10W
R1794	1-216-039-00	RES,CHIP	390	5%	1/10W
R1795	1-216-039-00	RES,CHIP	390	5%	1/10W
R1796	1-216-039-00	RES,CHIP	390	5%	1/10W
R1797	1-216-039-00	RES,CHIP	390	5%	1/10W
R1799	1-216-039-00	RES,CHIP	390	5%	1/10W
R1807	1-216-039-00	RES,CHIP	390	5%	1/10W
R1808	1-216-039-00	RES,CHIP	390	5%	1/10W
R1809	1-216-039-00	RES,CHIP	390	5%	1/10W
R1810	1-216-039-00	RES,CHIP	390	5%	1/10W
R1811	1-216-039-00	RES,CHIP	390	5%	1/10W
R1812	1-216-039-00	RES,CHIP	390	5%	1/10W
R1813	1-216-039-00	RES,CHIP	390	5%	1/10W
R1814	1-216-039-00	RES,CHIP	390	5%	1/10W
R1815	1-216-039-00	RES,CHIP	390	5%	1/10W
R1816	1-216-039-00	RES,CHIP	390	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1817	1-216-039-00	RES,CHIP	390	5%	1/10W
R1818	1-216-039-00	RES,CHIP	390	5%	1/10W
R1819	1-216-039-00	RES,CHIP	390	5%	1/10W
R1820	1-216-039-00	RES,CHIP	390	5%	1/10W
R1821	1-216-039-00	RES,CHIP	390	5%	1/10W
R1822	1-216-039-00	RES,CHIP	390	5%	1/10W
R1823	1-216-295-91	SHORT	0		
R1827	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1828	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R1829	1-216-025-91	RES,CHIP	100	5%	1/10W
R1830	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1831	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1832	1-216-017-91	RES,CHIP	47	5%	1/10W
R1833	1-216-017-91	RES,CHIP	47	5%	1/10W
R1834	1-216-017-91	RES,CHIP	47	5%	1/10W
R1901	1-216-025-91	RES,CHIP	100	5%	1/10W
R1902	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1905	1-216-013-00	RES,CHIP	33	5%	1/10W
R1906	1-216-013-00	RES,CHIP	33	5%	1/10W
R1907	1-216-013-00	RES,CHIP	33	5%	1/10W
R1909	1-216-013-00	RES,CHIP	33	5%	1/10W
R1910	1-216-013-00	RES,CHIP	33	5%	1/10W
R1914	1-216-025-91	RES,CHIP	100	5%	1/10W
R1916	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1917	1-216-033-00	RES,CHIP	220	5%	1/10W
R1918	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1919	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1920	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R1921	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1922	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1923	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1924	1-216-025-91	RES,CHIP	100	5%	1/10W
R1927	1-216-025-91	RES,CHIP	100	5%	1/10W
R1928	1-216-013-00	RES,CHIP	33	5%	1/10W
R1929	1-216-013-00	RES,CHIP	33	5%	1/10W
R1930	1-216-025-91	RES,CHIP	100	5%	1/10W
R1931	1-216-041-00	RES,CHIP	470	5%	1/10W
R1932	1-216-025-91	RES,CHIP	100	5%	1/10W
R1933	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1934	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1935	1-216-025-91	RES,CHIP	100	5%	1/10W
R1936	1-216-025-91	RES,CHIP	100	5%	1/10W
R1937	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1938	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1939	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1940	1-216-013-00	RES,CHIP	33	5%	1/10W
R1941	1-216-025-91	RES,CHIP	100	5%	1/10W
R1942	1-216-656-11	METAL CHIP	1.6K	0.50%	1/10W
R1943	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1948	1-216-295-91	SHORT	0		
R1949	1-216-295-91	SHORT	0		
R1950	1-216-295-91	SHORT	0		
R1952	1-216-295-91	SHORT	0		
R1956	1-216-039-00	RES,CHIP	390	5%	1/10W
R1957	1-216-039-00	RES,CHIP	390	5%	1/10W
R1958	1-216-039-00	RES,CHIP	390	5%	1/10W
R1959	1-216-039-00	RES,CHIP	390	5%	1/10W
R1960	1-216-039-00	RES,CHIP	390	5%	1/10W
R1961	1-216-039-00	RES,CHIP	390	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R1962	1-216-039-00	RES,CHIP	390	5%	1/10W
R1963	1-216-039-00	RES,CHIP	390	5%	1/10W
R1964	1-216-037-00	RES,CHIP	330	5%	1/10W
R1965	1-216-037-00	RES,CHIP	330	5%	1/10W
R1966	1-216-037-00	RES,CHIP	330	5%	1/10W
R1967	1-216-037-00	RES,CHIP	330	5%	1/10W
R1968	1-216-295-91	SHORT	0		
R1969	1-216-295-91	SHORT	0		
R1970	1-216-295-91	SHORT	0		
R1971	1-216-295-91	SHORT	0		
R1972	1-216-019-00	RES,CHIP	56	5%	1/10W
R1973	1-216-019-00	RES,CHIP	56	5%	1/10W
R1974	1-216-295-91	SHORT	0		
R1975	1-216-295-91	SHORT	0		
R1976	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1977	1-216-025-91	RES,CHIP	100	5%	1/10W
R1978	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1979	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1980	1-216-295-91	SHORT	0		
R1981	1-216-295-91	SHORT	0		
R1982	1-216-295-91	SHORT	0		
R1983	1-216-295-91	SHORT	0		
R1984	1-216-019-00	RES,CHIP	56	5%	1/10W
R1985	1-216-019-00	RES,CHIP	56	5%	1/10W
R1986	1-216-019-00	RES,CHIP	56	5%	1/10W
R1987	1-216-019-00	RES,CHIP	56	5%	1/10W
R1988	1-216-295-91	SHORT	0		
R1989	1-216-295-91	SHORT	0		
R1990	1-216-295-91	SHORT	0		
R1991	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1992	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1993	1-216-037-00	RES,CHIP	330	5%	1/10W
R1994	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1995	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1996	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1997	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1998	1-216-013-00	RES,CHIP	33	5%	1/10W
R1999	1-216-013-00	RES,CHIP	33	5%	1/10W
R9001	1-216-295-91	SHORT	0		
R9002	1-216-295-91	SHORT	0		
R9003	1-216-037-00	RES,CHIP	330	5%	1/10W
R9004	1-216-047-91	RES,CHIP	820	5%	1/10W
R9005	1-216-037-00	RES,CHIP	330	5%	1/10W
R9006	1-216-049-91	RES,CHIP	1K	5%	1/10W
R9007	1-216-117-00	RES,CHIP	680K	5%	1/10W
R9008	1-216-097-91	RES,CHIP	100K	5%	1/10W
R9009	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R9011	1-216-295-91	SHORT	0		
R9012	1-216-117-00	RES,CHIP	680K	5%	1/10W
R9013	1-216-081-00	RES,CHIP	22K	5%	1/10W
R9014	1-216-091-00	RES,CHIP	56K	5%	1/10W
R9015	1-216-113-00	RES,CHIP	470K	5%	1/10W
R9016	1-216-081-00	RES,CHIP	22K	5%	1/10W
R9017	1-216-025-91	RES,CHIP	100	5%	1/10W
R9018	1-216-025-91	RES,CHIP	100	5%	1/10W
R9019	1-216-033-00	RES,CHIP	220	5%	1/10W
R9020	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R9021	1-216-061-00	RES,CHIP	3.3K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R9022	1-216-062-00	RES,CHIP	3.6K	5%	1/10W
R9024	1-216-113-00	RES,CHIP	470K	5%	1/10W
R9026	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9027	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R9028	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R9029	1-216-049-91	RES,CHIP	1K	5%	1/10W
R9031	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R9032	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R9034	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9035	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9036	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R9037	1-216-623-11	METAL CHIP	68	0.50%	1/10W
R9038	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9039	1-216-295-91	SHORT	0		
R9040	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9041	1-216-077-00	RES,CHIP	15K	5%	1/10W
R9042	1-216-025-91	RES,CHIP	100	5%	1/10W
R9043	1-216-077-00	RES,CHIP	15K	5%	1/10W
R9044	1-216-077-00	RES,CHIP	15K	5%	1/10W
R9045	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9046	1-216-295-91	SHORT	0		
R9047	1-216-295-91	SHORT	0		
R9048	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9049	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R9050	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R9051	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9052	1-216-621-11	METAL CHIP	56	0.50%	1/10W
R9053	1-216-039-00	RES,CHIP	390	5%	1/10W
R9101	1-216-295-91	SHORT	0		
R9103	1-216-295-91	SHORT	0		
R9105	1-216-295-91	SHORT	0		
R9107	1-216-295-91	SHORT	0		
R9109	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R9110	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R9111	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R9112	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R9113	1-216-295-91	SHORT	0		
R9201	1-216-295-91	SHORT	0		
R9202	1-216-295-91	SHORT	0		
R9205	1-216-295-91	SHORT	0		
R9208	1-216-295-91	SHORT	0		
R9209	1-216-295-91	SHORT	0		
R9211	1-216-025-91	RES,CHIP	100	5%	1/10W
R9212	1-216-025-91	RES,CHIP	100	5%	1/10W
R9213	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R9214	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R9215	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R9216	1-216-634-11	METAL CHIP	200	0.50%	1/10W
R9217	1-216-634-11	METAL CHIP	200	0.50%	1/10W
R9218	1-216-634-11	METAL CHIP	200	0.50%	1/10W
R9219	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R9220	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R9221	1-216-025-91	RES,CHIP	100	5%	1/10W
R9222	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R9223	1-216-025-91	RES,CHIP	100	5%	1/10W
R9224	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R9225	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R9226	1-216-635-11	METAL CHIP	220	0.50%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R9227	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R9228	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R9229	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R9243	1-216-049-91	RES,CHIP	1K	5%	1/10W
R9244	1-216-049-91	RES,CHIP	1K	5%	1/10W
R9245	1-216-009-00	RES,CHIP	22	5%	1/10W
R9246	1-216-009-00	RES,CHIP	22	5%	1/10W
R9247	1-216-009-00	RES,CHIP	22	5%	1/10W
R9248	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R9249	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R9250	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R9251	1-216-295-91	SHORT	0		
R9252	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R9253	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R9301	1-216-013-00	RES,CHIP	33	5%	1/10W
R9302	1-216-013-00	RES,CHIP	33	5%	1/10W
R9303	1-216-013-00	RES,CHIP	33	5%	1/10W
R9304	1-216-013-00	RES,CHIP	33	5%	1/10W
R9305	1-216-013-00	RES,CHIP	33	5%	1/10W
R9306	1-216-013-00	RES,CHIP	33	5%	1/10W
R9307	1-216-013-00	RES,CHIP	33	5%	1/10W
R9308	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9309	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9310	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9311	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9312	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9313	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9314	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9315	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9316	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9317	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9321	1-216-121-91	RES,CHIP	1M	5%	1/10W
R9322	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9323	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9324	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9325	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9326	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9327	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9328	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9329	1-216-025-91	RES,CHIP	100	5%	1/10W
R9331	1-216-025-91	RES,CHIP	100	5%	1/10W
R9333	1-216-089-91	RES,CHIP	47K	5%	1/10W
R9334	1-216-025-91	RES,CHIP	100	5%	1/10W
R9339	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R9340	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9341	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9342	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9343	1-216-073-00	RES,CHIP	10K	5%	1/10W
R9347	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R9401	1-216-049-91	RES,CHIP	1K	5%	1/10W
R9402	1-216-025-91	RES,CHIP	100	5%	1/10W
R9403	1-216-025-91	RES,CHIP	100	5%	1/10W

<CRYSTAL>

X1201	1-767-606-11	VIBRATOR, CRYSTAL(20MHZ)(AT51)
X1401	1-760-191-11	VIBRATOR, CRYSTAL(3.579545MHZ)
X1402	1-760-191-11	VIBRATOR, CRYSTAL(4.433618MHZ)
X1403	1-579-973-11	VIBRATOR, CRYSTAL(3.575611MHZ)(PAL-M)
X1901	1-760-273-11	VIBRATOR, CRYSTAL(20MHZ)

REF NO.	PART NO.	DESCRIPTION				REMARK
**********						
	* A-1135-953-A	BB COMPL				
		********				
	3-179-084-01	LEVER (R), PC BOARD				
	3-179-085-01	LEVER (L), PC BOARD				
		<CAPACITOR>				
C3001	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C3002	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3003	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3004	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C3005	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3006	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3007	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3009	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3010	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3011	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3013	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3016	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3017	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3018	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3019	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3020	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3021	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3023	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3024	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3025	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3026	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3027	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3028	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3030	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3031	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3032	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3101	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3102	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3103	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3104	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3106	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3109	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3110	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3111	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3113	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3114	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3115	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3116	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3117	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3119	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3120	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3121	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3122	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3123	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3125	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3126	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3127	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3128	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3129	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3130	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3131	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3132	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3221	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3223	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3225	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3226	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3227	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3301	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3302	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3306	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3307	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3310	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3311	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3312	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3313	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3314	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3401	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3402	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3403	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3404	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3405	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3406	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3408	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3409	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3410	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3411	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3412	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3413	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3414	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3501	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3502	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3503	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3504	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3505	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3506	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3507	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3508	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3509	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

BB

REF NO.	PART NO.	DESCRIPTION				REMARK
C3510	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3512	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3601	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C3602	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C3603	1-126-395-11	ELECT CHIP	22MF	20%	16V	
C3604	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3605	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3606	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3607	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3608	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3609	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C3610	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C3611	1-126-395-11	ELECT CHIP	22MF	20%	16V	
C3612	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3613	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3614	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3615	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3616	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3617	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3618	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3619	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3620	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3621	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3622	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3623	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3624	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3625	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3627	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3628	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3629	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3801	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3802	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3803	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3804	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3805	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3806	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3807	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3808	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3809	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3810	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3811	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3812	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3813	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3814	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3815	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3816	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3817	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3818	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3819	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3820	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3821	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3822	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3823	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3824	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3825	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3826	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C3827	1-126-206-11	ELECT CHIP	100MF	20%	6.3V	
C3828	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3829	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3830	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3831	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3832	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3833	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3834	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3835	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3836	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3837	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3838	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3839	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3840	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3841	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3842	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3843	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3844	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3845	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3846	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3847	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3848	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3849	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3850	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3851	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3852	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3853	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3854	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3855	1-126-206-11	ELECT CHIP	100MF	20%	6.3V	
C3856	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3857	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3858	1-128-393-11	ELECT CHIP	100MF	20%	10V	
C3901	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3902	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3903	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3904	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3905	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3906	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3907	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3908	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3909	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3910	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3911	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3912	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3913	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3914	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3915	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3916	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3917	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3918	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3919	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3920	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3921	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3922	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C3923	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3924	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3925	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

REF NO.	PART NO.	DESCRIPTION				REMARK
C3926	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3927	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3928	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3929	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3930	1-126-206-11	ELECT CHIP	100MF	20%	6.3V	
C3931	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3932	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3933	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3934	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3935	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3936	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C3937	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C3938	1-128-393-11	ELECT CHIP	100MF	20%	10V	
		<CONNECTOR>				
CN3001	* 1-785-559-11	CONNECTOR, BOARD TO BOARD 140P				
CN3201	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P				
CN3601	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P				
CN3602	1-770-837-11	CONNECTOR, BOARD TO BOARD 30P				
		<FERRITE BEAD>				
FB3801	1-469-365-21	INDUCTOR	0μH			
FB3802	1-469-365-21	INDUCTOR	0μH			
FB3901	1-469-365-21	INDUCTOR	0μH			
FB3902	1-469-365-21	INDUCTOR	0μH			
		<FILTER>				
FL3001	1-239-466-21	FILTER, EMI				
FL3002	1-239-400-11	FILTER, CHIP EMI				
FL3003	1-239-400-11	FILTER, CHIP EMI				
FL3004	1-239-466-21	FILTER, EMI				
FL3005	1-239-466-21	FILTER, EMI				
FL3006	1-239-466-21	FILTER, EMI				
FL3007	1-239-466-21	FILTER, EMI				
FL3008	1-239-400-11	FILTER, CHIP EMI				
FL3016	1-239-466-21	FILTER, EMI				
FL3025	1-239-466-21	FILTER, EMI				
FL3026	1-239-466-21	FILTER, EMI				
FL3027	1-239-466-21	FILTER, EMI				
		<IC>				
IC3001	8-759-456-26	IC 74LCX541MTCX				
IC3002	8-759-456-26	IC 74LCX541MTCX				
IC3003	8-759-386-26	IC 74LCX574MTCX				
IC3004	8-759-386-26	IC 74LCX574MTCX				
IC3005	8-759-012-13	IC MC10H125M				
IC3006	8-759-012-00	IC MC10H116M				
IC3007	8-759-563-32	IC CXG8007TQ				
IC3008	8-759-389-26	IC 74LCX08MTCX				
IC3009	8-759-389-26	IC 74LCX08MTCX				
IC3010	8-759-386-26	IC 74LCX574MTCX				
IC3011	8-759-386-26	IC 74LCX574MTCX				
IC3012	8-759-490-41	IC TC74VHCT541AFT(EL)				
IC3101	8-759-563-32	IC CXG8007TQ				
IC3102	8-759-563-32	IC CXG8007TQ				
IC3201	8-759-563-33	IC CXD8774R				
IC3202	8-759-571-43	IC ISPLSI1016E-80LT44-BB02V1				
IC3203	8-759-456-26	IC 74LCX541MTCX				
IC3204	8-759-456-26	IC 74LCX541MTCX				

REF NO.	PART NO.	DESCRIPTION				REMARK
IC3301	8-759-559-51	IC IP90C63				
IC3302	8-759-434-14	IC HM5283206FP-10				
IC3303	8-759-559-51	IC IP90C63				
IC3304	8-759-434-14	IC HM5283206FP-10				
IC3305	8-759-466-57	IC 74LCX157MTCX				
IC3306	8-759-466-57	IC 74LCX157MTCX				
IC3307	8-759-466-57	IC 74LCX157MTCX				
IC3308	8-759-466-57	IC 74LCX157MTCX				
IC3309	8-759-386-26	IC 74LCX574MTCX				
IC3310	8-759-386-26	IC 74LCX574MTCX				
IC3401	8-759-559-51	IC IP90C63				
IC3402	8-759-434-14	IC HM5283206FP-10				
IC3403	8-759-559-51	IC IP90C63				
IC3404	8-759-434-14	IC HM5283206FP-10				
IC3405	8-759-466-57	IC 74LCX157MTCX				
IC3406	8-759-466-57	IC 74LCX157MTCX				
IC3407	8-759-466-57	IC 74LCX157MTCX				
IC3408	8-759-466-57	IC 74LCX157MTCX				
IC3409	8-759-386-26	IC 74LCX574MTCX				
IC3410	8-759-386-26	IC 74LCX574MTCX				
IC3501	8-759-559-51	IC IP90C63				
IC3502	8-759-434-14	IC HM5283206FP-10				
IC3503	8-759-559-51	IC IP90C63				
IC3504	8-759-434-14	IC HM5283206FP-10				
IC3505	8-759-466-57	IC 74LCX157MTCX				
IC3506	8-759-466-57	IC 74LCX157MTCX				
IC3507	8-759-466-57	IC 74LCX157MTCX				
IC3508	8-759-466-57	IC 74LCX157MTCX				
IC3509	8-759-386-26	IC 74LCX574MTCX				
IC3510	8-759-386-26	IC 74LCX574MTCX				
IC3601	8-759-473-33	IC IMISM530AYB-D				
IC3602	8-759-571-42	IC ISPLSI1016E-80LT44-BB01V1				
IC3603	8-759-456-26	IC 74LCX541MTCX				
IC3604	8-759-473-33	IC IMISM530AYB-D				
IC3605	8-759-456-26	IC 74LCX541MTCX				
IC3606	8-759-456-26	IC 74LCX541MTCX				
IC3607	8-759-564-27	IC GMZ1AH2B				
IC3608	8-759-456-26	IC 74LCX541MTCX				
IC3609	8-759-456-26	IC 74LCX541MTCX				
IC3610	8-759-456-26	IC 74LCX541MTCX				
IC3611	8-759-477-70	IC MC10H351MEL				
IC3612	8-759-477-70	IC MC10H351MEL				
IC3613	8-759-466-55	IC 74LCX74MTCX				
IC3614	8-759-466-55	IC 74LCX74MTCX				
IC3801	8-759-544-02	IC CXD8760FQ				
IC3802	8-752-082-48	IC CXA3197R				
IC3803	8-759-544-02	IC CXD8760FQ				
IC3804	8-752-082-48	IC CXA3197R				
IC3901	8-759-544-02	IC CXD8760FQ				
IC3902	8-752-082-48	IC CXA3197R				
IC3903	8-759-544-01	IC S-80828ANNP-EDR-T2				
IC3904	8-759-389-30	IC 74LCX32MTCX				
IC3905	8-759-475-44	IC TC74LCX138FT(EL)				
IC3906	* 8-759-570-98	IC MBM29LV002T-SX1647				
		<RESISTOR>				
R3001	1-216-025-91	RES.CHIP	100	5%	1/10W	

BB

REF NO.	PART NO.	DESCRIPTION			REMARK
R3002	1-216-025-91	RES,CHIP	100	5%	1/10W
R3003	1-216-025-91	RES,CHIP	100	5%	1/10W
R3004	1-216-295-91	SHORT	0		
R3005	1-216-025-91	RES,CHIP	100	5%	1/10W
R3006	1-216-019-00	RES,CHIP	56	5%	1/10W
R3007	1-216-019-00	RES,CHIP	56	5%	1/10W
R3008	1-216-019-00	RES,CHIP	56	5%	1/10W
R3009	1-216-019-00	RES,CHIP	56	5%	1/10W
R3010	1-216-025-91	RES,CHIP	100	5%	1/10W
R3011	1-216-025-91	RES,CHIP	100	5%	1/10W
R3012	1-216-025-91	RES,CHIP	100	5%	1/10W
R3013	1-216-025-91	RES,CHIP	100	5%	1/10W
R3014	1-216-025-91	RES,CHIP	100	5%	1/10W
R3015	1-216-025-91	RES,CHIP	100	5%	1/10W
R3016	1-216-025-91	RES,CHIP	100	5%	1/10W
R3017	1-216-025-91	RES,CHIP	100	5%	1/10W
R3020	1-216-009-00	RES,CHIP	22	5%	1/10W
R3022	1-216-009-00	RES,CHIP	22	5%	1/10W
R3023	1-216-009-00	RES,CHIP	22	5%	1/10W
R3101	1-216-025-91	RES,CHIP	100	5%	1/10W
R3102	1-216-025-91	RES,CHIP	100	5%	1/10W
R3103	1-216-025-91	RES,CHIP	100	5%	1/10W
R3104	1-216-025-91	RES,CHIP	100	5%	1/10W
R3105	1-216-025-91	RES,CHIP	100	5%	1/10W
R3106	1-216-025-91	RES,CHIP	100	5%	1/10W
R3107	1-216-025-91	RES,CHIP	100	5%	1/10W
R3108	1-216-025-91	RES,CHIP	100	5%	1/10W
R3111	1-216-009-00	RES,CHIP	22	5%	1/10W
R3113	1-216-009-00	RES,CHIP	22	5%	1/10W
R3114	1-216-025-91	RES,CHIP	100	5%	1/10W
R3115	1-216-025-91	RES,CHIP	100	5%	1/10W
R3116	1-216-025-91	RES,CHIP	100	5%	1/10W
R3117	1-216-025-91	RES,CHIP	100	5%	1/10W
R3118	1-216-025-91	RES,CHIP	100	5%	1/10W
R3119	1-216-025-91	RES,CHIP	100	5%	1/10W
R3120	1-216-025-91	RES,CHIP	100	5%	1/10W
R3121	1-216-025-91	RES,CHIP	100	5%	1/10W
R3124	1-216-009-00	RES,CHIP	22	5%	1/10W
R3126	1-216-009-00	RES,CHIP	22	5%	1/10W
R3127	1-216-009-00	RES,CHIP	22	5%	1/10W
R3217	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3218	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3221	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3224	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3226	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3229	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3232	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3233	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3234	1-216-009-00	RES,CHIP	22	5%	1/10W
R3235	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3236	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3238	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3239	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3240	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3241	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3247	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3248	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3249	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3250	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3251	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3252	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3253	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3254	1-216-295-91	SHORT	0		
R3255	1-216-009-00	RES,CHIP	22	5%	1/10W
R3256	1-216-009-00	RES,CHIP	22	5%	1/10W
R3257	1-216-009-00	RES,CHIP	22	5%	1/10W
R3258	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3259	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3260	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3261	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3263	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3264	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3265	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3266	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3267	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3268	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3269	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3270	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3271	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3272	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3273	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3274	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3275	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3276	1-216-009-00	RES,CHIP	22	5%	1/10W
R3277	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3278	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3279	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3280	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3281	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3282	1-216-009-00	RES,CHIP	22	5%	1/10W
R3283	1-216-009-00	RES,CHIP	22	5%	1/10W
R3601	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R3602	1-216-295-91	SHORT	0		
R3603	1-216-295-91	SHORT	0		
R3604	1-216-295-91	SHORT	0		
R3605	1-216-295-91	SHORT	0		
R3606	1-216-295-91	SHORT	0		
R3607	1-216-001-00	RES,CHIP	10	5%	1/10W
R3608	1-216-009-00	RES,CHIP	22	5%	1/10W
R3609	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3610	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3611	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3612	1-216-295-91	SHORT	0		
R3613	1-216-009-00	RES,CHIP	22	5%	1/10W
R3614	1-216-009-00	RES,CHIP	22	5%	1/10W
R3615	1-216-009-00	RES,CHIP	22	5%	1/10W
R3616	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3617	1-216-295-91	SHORT	0		
R3618	1-216-295-91	SHORT	0		
R3619	1-216-295-91	SHORT	0		
R3620	1-216-295-91	SHORT	0		
R3622	1-216-009-00	RES,CHIP	22	5%	1/10W
R3623	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3624	1-216-009-00	RES,CHIP	22	5%	1/10W
R3625	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3626	1-216-009-00	RES,CHIP	22	5%	1/10W

BB

REF NO.	PART NO.	DESCRIPTION			REMARK
R3627	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3628	1-216-009-00	RES,CHIP	22	5%	1/10W
R3629	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3630	1-216-009-00	RES,CHIP	22	5%	1/10W
R3631	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R3633	1-216-009-00	RES,CHIP	22	5%	1/10W
R3634	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3635	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3636	1-216-009-00	RES,CHIP	22	5%	1/10W
R3637	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3638	1-216-009-00	RES,CHIP	22	5%	1/10W
R3639	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3640	1-216-009-00	RES,CHIP	22	5%	1/10W
R3641	1-216-295-91	SHORT	0		
R3642	1-216-295-91	SHORT	0		
R3643	1-216-295-91	SHORT	0		
R3644	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3645	1-216-009-00	RES,CHIP	22	5%	1/10W
R3646	1-216-295-91	SHORT	0		
R3647	1-216-295-91	SHORT	0		
R3648	1-216-001-00	RES,CHIP	10	5%	1/10W
R3649	1-216-009-00	RES,CHIP	22	5%	1/10W
R3650	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3651	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3652	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3653	1-216-009-00	RES,CHIP	22	5%	1/10W
R3654	1-216-009-00	RES,CHIP	22	5%	1/10W
R3655	1-216-009-00	RES,CHIP	22	5%	1/10W
R3656	1-216-009-00	RES,CHIP	22	5%	1/10W
R3657	1-216-009-00	RES,CHIP	22	5%	1/10W
R3658	1-216-009-00	RES,CHIP	22	5%	1/10W
R3659	1-216-009-00	RES,CHIP	22	5%	1/10W
R3660	1-216-009-00	RES,CHIP	22	5%	1/10W
R3661	1-216-009-00	RES,CHIP	22	5%	1/10W
R3662	1-216-009-00	RES,CHIP	22	5%	1/10W
R3663	1-216-009-00	RES,CHIP	22	5%	1/10W
R3664	1-216-009-00	RES,CHIP	22	5%	1/10W
R3665	1-216-295-91	SHORT	0		
R3666	1-216-295-91	SHORT	0		
R3667	1-216-295-91	SHORT	0		
R3668	1-216-295-91	SHORT	0		
R3670	1-216-009-00	RES,CHIP	22	5%	1/10W
R3671	1-216-295-91	SHORT	0		
R3672	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3673	1-216-009-00	RES,CHIP	22	5%	1/10W
R3674	1-216-009-00	RES,CHIP	22	5%	1/10W
R3675	1-216-009-00	RES,CHIP	22	5%	1/10W
R3676	1-216-009-00	RES,CHIP	22	5%	1/10W
R3677	1-216-009-00	RES,CHIP	22	5%	1/10W
R3678	1-216-009-00	RES,CHIP	22	5%	1/10W
R3679	1-216-009-00	RES,CHIP	22	5%	1/10W
R3680	1-216-009-00	RES,CHIP	22	5%	1/10W
R3681	1-216-009-00	RES,CHIP	22	5%	1/10W
R3682	1-216-009-00	RES,CHIP	22	5%	1/10W
R3683	1-216-009-00	RES,CHIP	22	5%	1/10W
R3684	1-216-009-00	RES,CHIP	22	5%	1/10W
R3685	1-216-009-00	RES,CHIP	22	5%	1/10W
R3686	1-216-009-00	RES,CHIP	22	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R3687	1-216-009-00	RES,CHIP	22	5%	1/10W
R3688	1-216-009-00	RES,CHIP	22	5%	1/10W
R3689	1-216-295-91	SHORT	0		
R3690	1-216-295-91	SHORT	0		
R3691	1-216-295-91	SHORT	0		
R3692	1-216-295-91	SHORT	0		
R3693	1-216-009-00	RES,CHIP	22	5%	1/10W
R3694	1-216-009-00	RES,CHIP	22	5%	1/10W
R3695	1-216-009-00	RES,CHIP	22	5%	1/10W
R3696	1-216-009-00	RES,CHIP	22	5%	1/10W
R3697	1-216-009-00	RES,CHIP	22	5%	1/10W
R3698	1-216-009-00	RES,CHIP	22	5%	1/10W
R3699	1-216-009-00	RES,CHIP	22	5%	1/10W
R3700	1-216-009-00	RES,CHIP	22	5%	1/10W
R3701	1-216-009-00	RES,CHIP	22	5%	1/10W
R3702	1-216-009-00	RES,CHIP	22	5%	1/10W
R3703	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3704	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3705	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3706	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3707	1-216-295-91	SHORT	0		
R3708	1-216-009-00	RES,CHIP	22	5%	1/10W
R3709	1-216-009-00	RES,CHIP	22	5%	1/10W
R3710	1-216-009-00	RES,CHIP	22	5%	1/10W
R3711	1-216-009-00	RES,CHIP	22	5%	1/10W
R3712	1-216-009-00	RES,CHIP	22	5%	1/10W
R3713	1-216-009-00	RES,CHIP	22	5%	1/10W
R3714	1-216-009-00	RES,CHIP	22	5%	1/10W
R3715	1-216-009-00	RES,CHIP	22	5%	1/10W
R3716	1-216-009-00	RES,CHIP	22	5%	1/10W
R3717	1-216-009-00	RES,CHIP	22	5%	1/10W
R3718	1-216-009-00	RES,CHIP	22	5%	1/10W
R3719	1-216-009-00	RES,CHIP	22	5%	1/10W
R3720	1-216-009-00	RES,CHIP	22	5%	1/10W
R3721	1-216-009-00	RES,CHIP	22	5%	1/10W
R3722	1-216-009-00	RES,CHIP	22	5%	1/10W
R3723	1-216-009-00	RES,CHIP	22	5%	1/10W
R3725	1-216-009-00	RES,CHIP	22	5%	1/10W
R3726	1-216-009-00	RES,CHIP	22	5%	1/10W
R3727	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3728	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3729	1-216-009-00	RES,CHIP	22	5%	1/10W
R3730	1-216-009-00	RES,CHIP	22	5%	1/10W
R3731	1-216-009-00	RES,CHIP	22	5%	1/10W
R3732	1-216-009-00	RES,CHIP	22	5%	1/10W
R3742	1-216-295-91	SHORT	0		
R3801	1-216-295-91	SHORT	0		
R3803	1-216-295-91	SHORT	0		
R3806	1-216-295-91	SHORT	0		
R3807	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3808	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R3809	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R3811	1-216-620-11	METAL CHIP	51	0.50%	1/10W
R3812	1-216-295-91	SHORT	0		
R3814	1-216-295-91	SHORT	0		
R3815	1-216-295-91	SHORT	0		
R3817	1-216-295-91	SHORT	0		
R3818	1-216-295-91	SHORT	0		
R3820	1-216-295-91	SHORT	0		

BB

REF NO.	PART NO.	DESCRIPTION			REMARK
R3822	1-216-009-00	RES,CHIP	22	5%	1/10W
R3823	1-216-295-91	SHORT	0		
R3825	1-216-295-91	SHORT	0		
R3828	1-216-295-91	SHORT	0		
R3829	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3830	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R3831	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R3833	1-216-620-11	METAL CHIP	51	0.50%	1/10W
R3834	1-216-295-91	SHORT	0		
R3836	1-216-295-91	SHORT	0		
R3837	1-216-295-91	SHORT	0		
R3839	1-216-295-91	SHORT	0		
R3840	1-216-295-91	SHORT	0		
R3842	1-216-295-91	SHORT	0		
R3844	1-216-009-00	RES,CHIP	22	5%	1/10W
R3901	1-216-295-91	SHORT	0		
R3902	1-216-295-91	SHORT	0		
R3903	1-216-295-91	SHORT	0		
R3905	1-216-009-00	RES,CHIP	22	5%	1/10W
R3906	1-216-009-00	RES,CHIP	22	5%	1/10W
R3908	1-216-295-91	SHORT	0		
R3910	1-216-295-91	SHORT	0		
R3911	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3912	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R3913	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R3915	1-216-620-11	METAL CHIP	51	0.50%	1/10W
R3916	1-216-295-91	SHORT	0		
R3918	1-216-295-91	SHORT	0		
R3919	1-216-295-91	SHORT	0		
R3921	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3923	1-216-295-91	SHORT	0		
R3924	1-216-295-91	SHORT	0		
R3927	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3928	1-216-023-00	RES,CHIP	82	5%	1/10W
R3929	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R3930	1-216-023-00	RES,CHIP	82	5%	1/10W
R3931	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R3932	1-216-295-91	SHORT	0		
R3933	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3935	1-216-009-00	RES,CHIP	22	5%	1/10W
		<NETWORK>			
RB3001	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3002	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3003	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3004	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3005	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3006	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3007	1-236-908-11	RES, CHIP NETWORK 10K (3216)			
RB3008	1-233-576-11	RES, CHIP NETWORK 100			
RB3009	1-233-576-11	RES, CHIP NETWORK 100			
RB3010	1-233-576-11	RES, CHIP NETWORK 100			
RB3011	1-233-576-11	RES, CHIP NETWORK 100			
RB3012	1-233-575-11	RES, CHIP NETWORK 22			
RB3013	1-233-575-11	RES, CHIP NETWORK 22			
RB3014	1-233-575-11	RES, CHIP NETWORK 22			
RB3015	1-233-575-11	RES, CHIP NETWORK 22			
RB3016	1-233-575-11	RES, CHIP NETWORK 22			

REF NO.	PART NO.	DESCRIPTION	REMARK
RB3017	1-233-575-11	RES, CHIP NETWORK 22	
RB3018	1-233-575-11	RES, CHIP NETWORK 22	
RB3019	1-233-575-11	RES, CHIP NETWORK 22	
RB3020	1-233-575-11	RES, CHIP NETWORK 22	
RB3021	1-233-575-11	RES, CHIP NETWORK 22	
RB3022	1-233-575-11	RES, CHIP NETWORK 22	
RB3023	1-233-575-11	RES, CHIP NETWORK 22	
RB3024	1-233-575-11	RES, CHIP NETWORK 22	
RB3025	1-233-575-11	RES, CHIP NETWORK 22	
RB3026	1-233-575-11	RES, CHIP NETWORK 22	
RB3027	1-233-575-11	RES, CHIP NETWORK 22	
RB3028	1-233-575-11	RES, CHIP NETWORK 22	
RB3029	1-233-575-11	RES, CHIP NETWORK 22	
RB3030	1-233-575-11	RES, CHIP NETWORK 22	
RB3031	1-233-575-11	RES, CHIP NETWORK 22	
RB3101	1-233-575-11	RES, CHIP NETWORK 22	
RB3102	1-233-575-11	RES, CHIP NETWORK 22	
RB3103	1-233-575-11	RES, CHIP NETWORK 22	
RB3104	1-233-575-11	RES, CHIP NETWORK 22	
RB3105	1-233-575-11	RES, CHIP NETWORK 22	
RB3106	1-233-575-11	RES, CHIP NETWORK 22	
RB3107	1-233-575-11	RES, CHIP NETWORK 22	
RB3108	1-233-575-11	RES, CHIP NETWORK 22	
RB3109	1-233-575-11	RES, CHIP NETWORK 22	
RB3110	1-233-575-11	RES, CHIP NETWORK 22	
RB3111	1-233-575-11	RES, CHIP NETWORK 22	
RB3112	1-233-575-11	RES, CHIP NETWORK 22	
RB3113	1-233-575-11	RES, CHIP NETWORK 22	
RB3114	1-233-575-11	RES, CHIP NETWORK 22	
RB3115	1-233-575-11	RES, CHIP NETWORK 22	
RB3116	1-233-575-11	RES, CHIP NETWORK 22	
RB3201	1-233-575-11	RES, CHIP NETWORK 22	
RB3202	1-233-575-11	RES, CHIP NETWORK 22	
RB3203	1-233-575-11	RES, CHIP NETWORK 22	
RB3205	1-233-575-11	RES, CHIP NETWORK 22	
RB3206	1-233-575-11	RES, CHIP NETWORK 22	
RB3301	1-233-575-11	RES, CHIP NETWORK 22	
RB3302	1-233-575-11	RES, CHIP NETWORK 22	
RB3303	1-233-575-11	RES, CHIP NETWORK 22	
RB3304	1-233-575-11	RES, CHIP NETWORK 22	
RB3401	1-233-575-11	RES, CHIP NETWORK 22	
RB3402	1-233-575-11	RES, CHIP NETWORK 22	
RB3403	1-233-575-11	RES, CHIP NETWORK 22	
RB3404	1-233-575-11	RES, CHIP NETWORK 22	
RB3501	1-233-575-11	RES, CHIP NETWORK 22	
RB3502	1-233-575-11	RES, CHIP NETWORK 22	
RB3503	1-233-575-11	RES, CHIP NETWORK 22	
RB3504	1-233-575-11	RES, CHIP NETWORK 22	
RB3801	1-233-575-11	RES, CHIP NETWORK 22	
RB3802	1-233-575-11	RES, CHIP NETWORK 22	
RB3803	1-236-976-91	NETWORK, RES 22	
RB3804	1-233-575-11	RES, CHIP NETWORK 22	
RB3805	1-233-575-11	RES, CHIP NETWORK 22	
RB3806	1-233-575-11	RES, CHIP NETWORK 22	
RB3807	1-233-575-11	RES, CHIP NETWORK 22	
RB3808	1-236-976-91	NETWORK, RES 22	
RB3810	1-233-575-11	RES, CHIP NETWORK 22	
RB3811	1-233-575-11	RES, CHIP NETWORK 22	
RB3812	1-233-575-11	RES, CHIP NETWORK 22	

REF NO.	PART NO.	DESCRIPTION	REMARK
RB3813	1-233-575-11	RES, CHIP NETWORK 22	
RB3814	1-236-976-91	NETWORK, RES 22	
RB3815	1-233-575-11	RES, CHIP NETWORK 22	
RB3816	1-233-575-11	RES, CHIP NETWORK 22	
RB3817	1-233-575-11	RES, CHIP NETWORK 22	
RB3818	1-233-575-11	RES, CHIP NETWORK 22	
RB3819	1-236-976-91	NETWORK, RES 22	
RB3821	1-233-575-11	RES, CHIP NETWORK 22	
RB3822	1-233-575-11	RES, CHIP NETWORK 22	
RB3901	1-236-971-11	NETWORK, RES 0	
RB3902	1-236-971-11	NETWORK, RES 0	
RB3903	1-236-971-11	NETWORK, RES 0	
RB3904	1-236-971-11	NETWORK, RES 0	
RB3905	1-236-971-11	NETWORK, RES 0	
RB3906	1-233-575-11	RES, CHIP NETWORK 22	
RB3907	1-233-575-11	RES, CHIP NETWORK 22	
RB3908	1-236-976-91	NETWORK, RES 22	
RB3909	1-233-575-11	RES, CHIP NETWORK 22	
RB3910	1-233-575-11	RES, CHIP NETWORK 22	
RB3911	1-233-575-11	RES, CHIP NETWORK 22	
RB3912	1-233-575-11	RES, CHIP NETWORK 22	
RB3913	1-236-976-91	NETWORK, RES 22	
RB3915	1-233-575-11	RES, CHIP NETWORK 22	
RB3916	1-233-575-11	RES, CHIP NETWORK 22	
RB3917	1-236-976-91	NETWORK, RES 22	
RB3918	1-233-575-11	RES, CHIP NETWORK 22	
RB3919	1-233-575-11	RES, CHIP NETWORK 22	
RB3920	1-233-575-11	RES, CHIP NETWORK 22	
RB3921	1-233-575-11	RES, CHIP NETWORK 22	
RB3922	1-233-575-11	RES, CHIP NETWORK 22	
RB3923	1-233-575-11	RES, CHIP NETWORK 22	
RB3924	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3925	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3926	1-233-575-11	RES, CHIP NETWORK 22	
		<CRYSTAL>	
X3601	1-781-232-21	OSCILLATOR, CRYSTAL(60MHZ)	
X3602	1-781-233-21	OSCILLATOR, CRYSTAL(68MHZ)	

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	* A-1135-954-A	BC COMPL	
		********	
	3-179-084-01	LEVER (R), PC BOARD	
	3-179-085-01	LEVER (L), PC BOARD	
	4-382-854-01	SCREW (M3X8), P, SW (+)	
		<CAPACITOR>	
C4004	1-126-933-11	ELECT 100MF 20% 16V	
C4006	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4007	1-126-961-11	ELECT 2.2MF 20% 50V	
C4008	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4009	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4010	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4011	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C4012	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C4013	1-126-965-11	ELECT 22MF 20% 50V	
C4014	1-104-665-11	ELECT 100MF 20% 25V	
C4017	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4018	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4019	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4020	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4021	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4022	1-126-961-11	ELECT 2.2MF 20% 50V	
C4024	1-126-933-11	ELECT 100MF 20% 16V	
C4025	1-126-961-11	ELECT 2.2MF 20% 50V	
C4027	1-126-961-11	ELECT 2.2MF 20% 50V	
C4029	1-126-961-11	ELECT 2.2MF 20% 50V	
C4030	1-126-961-11	ELECT 2.2MF 20% 50V	
C4031	1-126-933-11	ELECT 100MF 20% 16V	
C4032	1-126-965-11	ELECT 22MF 20% 50V	
C4033	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4034	1-126-965-11	ELECT 22MF 20% 50V	
C4035	1-126-933-11	ELECT 100MF 20% 16V	
C4037	1-104-665-11	ELECT 100MF 20% 25V	
C4038	1-104-665-11	ELECT 100MF 20% 25V	
C4040	1-104-665-11	ELECT 100MF 20% 25V	
C4041	1-126-961-11	ELECT 2.2MF 20% 50V	
C4042	1-126-963-11	ELECT 4.7MF 20% 50V	
C4046	1-104-665-11	ELECT 100MF 20% 25V	
C4047	1-126-963-11	ELECT 4.7MF 20% 50V	
C4048	1-126-961-11	ELECT 2.2MF 20% 50V	
C4049	1-126-967-11	ELECT 47MF 20% 50V	
C4050	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4051	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4052	1-126-971-11	ELECT 470MF 20% 50V	
C4053	1-126-971-11	ELECT 470MF 20% 50V	
C4054	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4056	1-128-550-21	ELECT 2200MF 20% 50V	
C4057	1-126-960-11	ELECT 1MF 20% 50V	
C4058	1-126-960-11	ELECT 1MF 20% 50V	
C4301	1-104-665-11	ELECT 100MF 20% 25V	
C4302	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4303	1-104-665-11	ELECT 100MF 20% 25V	
C4304	1-126-933-11	ELECT 100MF 20% 16V	
C4305	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4306	1-126-933-11	ELECT 100MF 20% 16V	
C4307	1-126-933-11	ELECT 100MF 20% 16V	
C4308	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4309	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4310	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4311	1-126-961-11	ELECT 2.2MF 20% 50V	
C4312	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4313	1-126-961-11	ELECT 2.2MF 20% 50V	
C4314	1-126-961-11	ELECT 2.2MF 20% 50V	
C4315	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4316	1-104-664-11	ELECT 47MF 20% 16V	
C4317	1-104-664-11	ELECT 47MF 20% 16V	
C4318	1-104-664-11	ELECT 47MF 20% 16V	
C4319	1-126-964-11	ELECT 10MF 20% 50V	
C4320	1-126-964-11	ELECT 10MF 20% 50V	
C4321	1-126-964-11	ELECT 10MF 20% 50V	
C4510	1-104-665-11	ELECT 100MF 20% 25V	
C4511	1-104-665-11	ELECT 100MF 20% 25V	
		<CONNECTOR>	
CN4001	1-778-393-11	PIN, PC CONNECTOR 96P	

BC

REF NO.	PART NO.	DESCRIPTION	REMARK
CN4002	1-770-837-11	CONNECTOR, BOARD TO BOARD 30P	
CN4003	* 1-564-507-11	PLUG, CONNECTOR 4P	
		<DIODE>	
D4001	8-719-914-43	DIODE DAN202K	
D4002	8-719-914-43	DIODE DAN202K	
D4007	8-719-914-43	DIODE DAN202K	
D4010	8-719-914-43	DIODE DAN202K	
D4011	8-719-158-37	DIODE RD9.1SB2	
D4012	8-719-158-37	DIODE RD9.1SB2	
D4014	8-719-158-17	DIODE RD5.6SB2	
D4015	8-719-158-17	DIODE RD5.6SB2	
D4301	8-719-914-43	DIODE DAN202K	
D4302	8-719-158-17	DIODE RD5.6SB2	
D4303	8-719-158-17	DIODE RD5.6SB2	
D4304	8-719-158-17	DIODE RD5.6SB2	
D4305	8-719-158-17	DIODE RD5.6SB2	
D4306	8-719-158-17	DIODE RD5.6SB2	
D4307	8-719-158-17	DIODE RD5.6SB2	
D4308	8-719-988-62	DIODE 1SS355	
D4309	8-719-988-62	DIODE 1SS355	
D4310	8-719-988-62	DIODE 1SS355	
		<FILTER>	
FL4301	1-236-071-11	ENCAPSULATED COMPONENT	
FL4302	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC4002	8-759-273-12	IC TDA7315D013TR	
IC4003	8-759-701-59	IC NJM78M09FA	
IC4004	8-759-135-80	IC µPC358C	
IC4006	8-759-980-43	IC TDA2009A	
IC4301	8-759-286-17	IC PC74HC32D-T	
IC4302	8-759-286-17	IC PC74HC32D-T	
IC4303	8-759-286-17	IC PC74HC32D-T	
IC4304	8-759-285-69	IC PC74HC14D-T	
IC4305	8-759-285-55	IC PC74HC08D-T	
IC4306	8-759-633-10	IC M54544AL	
IC4307	8-759-633-10	IC M54544AL	
IC4308	8-759-633-10	IC M54544AL	
IC4309	8-759-394-35	IC BA12T	
		<COIL>	
L4001	1-412-363-21	FERRITE 0µH	
L4002	1-412-363-21	FERRITE 0µH	
L4301	1-412-533-21	INDUCTOR 47µH	
L4502	1-412-533-21	INDUCTOR 47µH	
		<TRANSISTOR>	
Q4001	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q4002	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q4003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4005	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4006	8-729-202-38	TRANSISTOR 2SC3326N-A	
Q4007	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4008	8-729-202-38	TRANSISTOR 2SC3326N-A	
Q4009	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4010	8-729-202-38	TRANSISTOR 2SC3326N-A	
Q4011	8-729-202-38	TRANSISTOR 2SC3326N-A	
		<RESISTOR>	
R4001	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4002	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4003	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R4004	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R4005	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R4006	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R4007	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R4008	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R4009	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R4010	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R4011	1-216-295-91	SHORT 0	
R4012	1-216-295-91	SHORT 0	
R4015	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4016	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4018	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R4021	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R4022	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R4023	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R4024	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R4025	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4027	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4028	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4029	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4030	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4033	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4034	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4035	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R4036	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4038	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R4039	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R4040	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4043	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4044	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4047	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4050	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R4051	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4052	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R4053	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R4054	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4055	1-216-041-00	RES,CHIP 470 5% 1/10W	
R4056	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4057	1-216-015-00	RES,CHIP 39 5% 1/10W	
R4058	1-216-015-00	RES,CHIP 39 5% 1/10W	
R4059	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4060	1-249-385-11	CARBON 2.2 5% 1/4W	F
R4061	1-249-385-11	CARBON 2.2 5% 1/4W	F
R4062	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R4063	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R4064	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4065	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4066	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R4067	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R4301	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4302	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4303	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4304	1-216-025-91	RES,CHIP 100 5% 1/10W	

REF NO.	PART NO.	DESCRIPTION				REMARK
R4305	1-216-025-91	RES,CHIP	100	5%	1/10W	
R4306	1-216-025-91	RES,CHIP	100	5%	1/10W	
R4307	1-216-025-91	RES,CHIP	100	5%	1/10W	
R4308	1-216-025-91	RES,CHIP	100	5%	1/10W	
R4315	1-216-295-91	SHORT	0			
R4316	1-216-295-91	SHORT	0			
R4317	1-216-295-91	SHORT	0			
R4318	1-216-295-91	SHORT	0			
R4319	1-216-295-91	SHORT	0			
R4320	1-216-295-91	SHORT	0			
R4321	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4322	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4323	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4324	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4325	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4326	1-216-117-00	RES,CHIP	680K	5%	1/10W	
R4333	1-216-295-91	SHORT	0			
R4334	1-216-295-91	SHORT	0			
R4335	1-216-295-91	SHORT	0			
R4336	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R4337	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R4338	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R4345	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R4346	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R4347	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
		<TEST PIN>				
TP4001	* 1-535-881-21	TERMINAL, TP (AUTO INSERTION)				
TP4002	* 1-535-881-21	TERMINAL, TP (AUTO INSERTION)				
TP4003	* 1-535-881-21	TERMINAL, TP (AUTO INSERTION)				
TP4004	* 1-535-881-21	TERMINAL, TP (AUTO INSERTION)				
TP4005	* 1-535-881-21	TERMINAL, TP (AUTO INSERTION)				
**********						
	*A-1131-349-A	BM MOUNT ********				
		<CAPACITOR>				
C302	1-126-941-11	ELECT	470MF	20%	25V	
C304	1-126-941-11	ELECT	470MF	20%	25V	
C306	1-126-941-11	ELECT	470MF	20%	25V	
C307	1-126-941-11	ELECT	470MF	20%	25V	
		<CONNECTOR>				
CN304	1-778-391-11	SOCKET, PC CONNECTOR 96P				
CN305	1-778-393-11	PIN, PC CONNECTOR 96P				
CN307	* 1-564-515-11	PLUG, CONNECTOR 12P				
CN308	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN310	* 1-564-505-11	PLUG, CONNECTOR 2P				
CN311	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN312	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN313	* 1-564-511-11	PLUG, CONNECTOR 8P				
CN314	* 1-564-595-11	PLUG, CONNECTOR 14P				
CN315	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN316	* 1-564-511-11	PLUG, CONNECTOR 8P				
CN317	* 1-564-513-11	PLUG, CONNECTOR 10P				
		<COIL>				

REF NO.	PART NO.	DESCRIPTION				REMARK
L301	1-412-533-21	INDUCTOR	47µH			
L302	1-412-533-21	INDUCTOR	47µH			
L303	1-412-533-21	INDUCTOR	47µH			
**********						
	* A-1335-104-A	C COMPL *******				
	1-923-514-40	WIRE UL1061 AWG28 140MM BLU				
		<CAPACITOR>				
C5001	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5002	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C5003	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5004	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5005	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5006	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5009	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C5010	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5011	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5012	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5013	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5014	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5015	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5016	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5017	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5018	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5019	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5020	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5021	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5022	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5023	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5024	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5026	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5027	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5028	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5035	1-127-532-11	ELECT	47MF	20%	20V	
C5036	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C5037	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5038	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5039	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5040	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5041	1-164-005-11	CERAMIC CHIP	0.47MF	25V		
C5202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5204	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5208	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5212	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5214	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5215	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5216	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5218	1-164-346-11	CERAMIC CHIP	1MF	16V		
C5220	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5221	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5223	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	

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REF NO.	PART NO.	DESCRIPTION				REMARK
C5224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5225	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C5226	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5227	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5228	1-128-397-21	ELECT CHIP	100MF	20%	16V	
C5229	1-128-397-21	ELECT CHIP	100MF	20%	16V	
C5230	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5231	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5232	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5233	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5234	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5301	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5302	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5303	1-109-994-11	CERAMIC CHIP	2.2MF	10%	10V	
C5405	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5406	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C5407	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5408	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C5421	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5425	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5426	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5427	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5428	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5501	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5502	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5504	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5505	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5506	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5507	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5510	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5512	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C5513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5518	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5519	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5521	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5522	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5523	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5524	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5527	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5528	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5529	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C5530	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5532	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C5533	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5535	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5536	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5537	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5538	1-128-400-11	ELECT CHIP	47MF	20%	25V	
C5541	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5542	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5543	1-117-681-11	ELECT CHIP	100MF	20%	16V	
C5544	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5546	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5547	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5548	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5549	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5550	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5551	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5554	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5555	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5558	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C5559	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C5562	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C5563	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C5564	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
		<CONNECTOR>				
CN5001	1-778-232-11	CONNECTOR, BOARD TO BOARD 30P				
CN5002	1-778-232-11	CONNECTOR, BOARD TO BOARD 30P				
CN5003	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN5004	* 1-564-505-11	PLUG, CONNECTOR 2P				
CN5005	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN5006	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN5007	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN5048	* 1-564-505-11	PLUG, CONNECTOR 2P				
CN5049	* 1-564-505-11	PLUG, CONNECTOR 2P				
CN5201	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P				
CN5303	* 1-784-277-21	CONNECTOR, FFC/FPC 32P				
CN5404	* 1-784-277-21	CONNECTOR, FFC/FPC 32P				
CN5501	* 1-784-277-21	CONNECTOR, FFC/FPC 32P				
		<DIODE>				
D5001	8-719-158-17	DIODE RD5.6SB2				
D5002	8-719-914-43	DIODE DAN202K				
D5003	8-719-914-43	DIODE DAN202K				
D5004	8-719-914-43	DIODE DAN202K				
		<FERRITE BEAD>				
FB5402	1-414-760-21	INDUCTOR CHIP	0µH			
FB5501	1-414-227-11	INDUCTOR CHIP	0µH			
FB5514	1-414-760-21	INDUCTOR CHIP	0µH			
FB5515	1-414-760-21	INDUCTOR CHIP	0µH			
FB5516	1-414-760-21	INDUCTOR CHIP	0µH			
FB5517	1-414-760-21	INDUCTOR CHIP	0µH			
FB5518	1-414-760-21	INDUCTOR CHIP	0µH			
FB5519	1-414-760-21	INDUCTOR CHIP	0µH			
FB5520	1-414-760-21	INDUCTOR CHIP	0µH			
FB5521	1-414-760-21	INDUCTOR CHIP	0µH			
FB5522	1-543-954-22	FERRITE	0µH			
FB5523	1-414-227-11	INDUCTOR CHIP	0µH			
FB5524	1-543-954-22	FERRITE	0µH			
FB5537	1-414-760-21	INDUCTOR CHIP	0µH			
FB5538	1-414-760-21	INDUCTOR CHIP	0µH			
FB5539	1-414-760-21	INDUCTOR CHIP	0µH			
FB5540	1-414-760-21	INDUCTOR CHIP	0µH			
FB5541	1-414-760-21	INDUCTOR CHIP	0µH			
FB5542	1-414-760-21	INDUCTOR CHIP	0µH			
FB5543	1-414-760-21	INDUCTOR CHIP	0µH			
FB5544	1-414-760-21	INDUCTOR CHIP	0µH			
FB5545	1-414-227-11	INDUCTOR CHIP	0µH			
FB5558	1-414-760-21	INDUCTOR CHIP	0µH			
FB5559	1-414-760-21	INDUCTOR CHIP	0µH			
FB5560	1-414-760-21	INDUCTOR CHIP	0µH			
FB5561	1-414-760-21	INDUCTOR CHIP	0µH			
FB5562	1-414-760-21	INDUCTOR CHIP	0µH			
FB5563	1-414-760-21	INDUCTOR CHIP	0µH			

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REF NO.	PART NO.	DESCRIPTION		REMARK
FB5564	1-414-760-21	INDUCTOR CHIP	0µH	
FB5565	1-543-954-22	FERRITE	0µH	
FB5566	1-414-760-21	INDUCTOR CHIP	0µH	
		<FILTER>		
FL5001	1-239-466-21	FILTER, EMI		
FL5002	1-239-466-21	FILTER, EMI		
FL5003	1-239-466-21	FILTER, EMI		
FL5004	1-239-466-21	FILTER, EMI		
FL5005	1-239-466-21	FILTER, EMI		
		<IC>		
IC5002	8-759-437-13	IC MC10H350P		
IC5003	8-759-388-31	IC PQ20VZ1U		
IC5004	8-759-259-77	IC PQ20VZ5U		
IC5005	8-759-388-31	IC PQ20VZ1U		
IC5006	8-759-388-31	IC PQ20VZ1U		
IC5007	8-759-157-17	IC PQ05SZ1U		
IC5008	8-759-084-79	IC TC7S14F		
IC5009	8-759-096-87	IC TC7WU04FU(TE12R)		
IC5010	8-759-388-31	IC PQ20VZ1U		
IC5201	8-759-544-56	IC OPA2658U/2K5		
IC5202	8-759-381-53	IC µPC814G2-E2		
IC5203	8-759-544-56	IC OPA2658U/2K5		
IC5204	8-759-381-53	IC µPC814G2-E2		
IC5205	8-759-544-56	IC OPA2658U/2K5		
IC5206	8-759-381-53	IC µPC814G2-E2		
IC5208	8-759-544-55	IC MAX4066CEE-TE2		
IC5209	8-759-186-27	IC TC74VHCT04F		
IC5210	8-759-530-57	IC TLV431ACDBV2		
IC5214	8-759-571-81	IC ISPLSI1016E-80LT44-C01V1		
IC5215	8-759-186-60	IC TC74VHC240F		
IC5216	8-759-186-60	IC TC74VHC240F		
IC5301	8-752-080-99	IC CXA2112R		
IC5302	8-752-080-99	IC CXA2112R		
IC5304	8-752-080-99	IC CXA2112R		
IC5305	8-752-080-99	IC CXA2112R		
IC5401	8-759-470-51	IC MB88141APFV-ER		
IC5402	8-759-482-47	IC M62399FP-TE2		
IC5403	8-759-544-55	IC MAX4066CEE-TE2		
IC5404	8-759-081-48	IC TC74VHC08F		
IC5501	8-752-080-99	IC CXA2112R		
IC5502	8-752-080-99	IC CXA2112R		
		<COIL>		
L5001	1-410-377-31	INDUCTOR CHIP	4.7µH	
		<TRANSISTOR>		
Q5001	8-729-216-22	TRANSISTOR 2SA1162-G		
Q5003	8-729-900-53	TRANSISTOR DTC114EK		
Q5401	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		
Q5402	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		
Q5501	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		
Q5502	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		
Q5503	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		
Q5504	8-729-231-80	TRANSISTOR 2SC2859-Y		
Q5505	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)		
Q5506	8-729-231-80	TRANSISTOR 2SC2859-Y		
Q5507	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)		
Q5508	8-729-231-80	TRANSISTOR 2SC2859-Y		
Q5509	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)		
		<RESISTOR>		
R5001	1-216-295-91	SHORT	0	
R5002	1-216-295-91	SHORT	0	
R5005	1-216-295-91	SHORT	0	
R5007	1-216-295-91	SHORT	0	
R5008	1-216-295-91	SHORT	0	
R5009	1-216-097-91	RES,CHIP	100K 5%	1/10W
R5010	1-216-097-91	RES,CHIP	100K 5%	1/10W
R5011	1-216-097-91	RES,CHIP	100K 5%	1/10W
R5012	1-216-296-91	SHORT	0	
R5013	1-216-041-00	RES,CHIP	470 5%	1/10W
R5014	1-216-025-91	RES,CHIP	100 5%	1/10W
R5015	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5016	1-216-295-91	SHORT	0	
R5017	1-216-295-91	SHORT	0	
R5018	1-216-295-91	SHORT	0	
R5021	1-216-296-91	SHORT	0	
R5022	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5023	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5024	1-216-683-11	METAL CHIP	22K 0.50%	1/10W
R5025	1-216-684-91	METAL CHIP	24K 0.50%	1/10W
R5026	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5027	1-216-685-11	METAL CHIP	27K 0.50%	1/10W
R5028	1-216-679-11	METAL CHIP	15K 0.50%	1/10W
R5029	1-216-296-91	SHORT	0	
R5030	1-216-065-91	RES,CHIP	4.7K 5%	1/10W
R5031	1-216-651-11	METAL CHIP	1K 0.50%	1/10W
R5032	1-216-065-91	RES,CHIP	4.7K 5%	1/10W
R5033	1-216-651-11	METAL CHIP	1K 0.50%	1/10W
R5034	1-216-295-91	SHORT	0	
R5035	1-216-296-91	SHORT	0	
R5036	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5037	1-216-693-11	METAL CHIP	56K 0.50%	1/10W
R5038	1-216-675-11	METAL CHIP	10K 0.50%	1/10W
R5039	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5040	1-216-683-11	METAL CHIP	22K 0.50%	1/10W
R5041	1-216-675-11	METAL CHIP	10K 0.50%	1/10W
R5042	1-216-296-91	SHORT	0	
R5043	1-216-065-91	RES,CHIP	4.7K 5%	1/10W
R5044	1-216-651-11	METAL CHIP	1K 0.50%	1/10W
R5045	1-216-065-91	RES,CHIP	4.7K 5%	1/10W
R5046	1-216-651-11	METAL CHIP	1K 0.50%	1/10W
R5047	1-216-296-91	SHORT	0	
R5048	1-216-296-91	SHORT	0	
R5049	1-216-296-91	SHORT	0	
R5050	1-216-296-91	SHORT	0	
R5051	1-216-025-91	RES,CHIP	100 5%	1/10W
R5052	1-216-025-91	RES,CHIP	100 5%	1/10W
R5053	1-216-025-91	RES,CHIP	100 5%	1/10W
R5054	1-216-025-91	RES,CHIP	100 5%	1/10W
R5055	1-216-025-91	RES,CHIP	100 5%	1/10W
R5056	1-216-025-91	RES,CHIP	100 5%	1/10W
R5065	1-216-296-91	SHORT	0	
R5069	1-216-073-00	RES,CHIP	10K 5%	1/10W
R5071	1-216-073-00	RES,CHIP	10K 5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R5073	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5075	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5076	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5077	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5078	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5079	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5080	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5081	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5082	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5083	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5084	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5085	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5086	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5087	1-216-295-91	SHORT	0		
R5088	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5089	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5090	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5091	1-216-041-00	RES,CHIP	470	5%	1/10W
R5092	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5093	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R5094	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5095	1-216-688-11	METAL CHIP	36K	0.50%	1/10W
R5096	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5097	1-216-295-91	SHORT	0		
R5098	1-216-295-91	SHORT	0		
R5099	1-216-295-91	SHORT	0		
R5204	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R5205	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R5206	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R5210	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5211	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5212	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5214	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5215	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5216	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5217	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5218	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5219	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5220	1-216-295-91	SHORT	0		
R5221	1-216-295-91	SHORT	0		
R5222	1-216-295-91	SHORT	0		
R5223	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5224	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5226	1-216-295-91	SHORT	0		
R5227	1-216-025-91	RES,CHIP	100	5%	1/10W
R5228	1-216-025-91	RES,CHIP	100	5%	1/10W
R5229	1-216-025-91	RES,CHIP	100	5%	1/10W
R5230	1-216-017-91	RES,CHIP	47	5%	1/10W
R5231	1-216-017-91	RES,CHIP	47	5%	1/10W
R5232	1-216-017-91	RES,CHIP	47	5%	1/10W
R5233	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5236	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5237	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5238	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5239	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5240	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5241	1-216-049-91	RES,CHIP	1K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R5242	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5243	1-216-017-91	RES,CHIP	47	5%	1/10W
R5244	1-216-017-91	RES,CHIP	47	5%	1/10W
R5245	1-216-017-91	RES,CHIP	47	5%	1/10W
R5246	1-216-017-91	RES,CHIP	47	5%	1/10W
R5247	1-216-017-91	RES,CHIP	47	5%	1/10W
R5248	1-216-017-91	RES,CHIP	47	5%	1/10W
R5249	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5250	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5252	1-216-025-91	RES,CHIP	100	5%	1/10W
R5253	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5254	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5255	1-216-017-91	RES,CHIP	47	5%	1/10W
R5256	1-216-295-91	SHORT	0		
R5257	1-216-025-91	RES,CHIP	100	5%	1/10W
R5258	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5259	1-216-017-91	RES,CHIP	47	5%	1/10W
R5260	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5261	1-216-025-91	RES,CHIP	100	5%	1/10W
R5262	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5263	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5264	1-216-025-91	RES,CHIP	100	5%	1/10W
R5265	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5266	1-216-025-91	RES,CHIP	100	5%	1/10W
R5267	1-216-017-91	RES,CHIP	47	5%	1/10W
R5268	1-216-025-91	RES,CHIP	100	5%	1/10W
R5269	1-216-017-91	RES,CHIP	47	5%	1/10W
R5270	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5271	1-216-025-91	RES,CHIP	100	5%	1/10W
R5272	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5273	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5274	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5275	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5276	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5277	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5278	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5279	1-216-049-91	RES,CHIP	1K	5%	1/10W
R5280	1-216-025-91	RES,CHIP	100	5%	1/10W
R5281	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R5282	1-216-688-11	METAL CHIP	36K	0.50%	1/10W
R5283	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R5286	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5287	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5288	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5289	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R5290	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R5291	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R5292	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R5293	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5294	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5295	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R5296	1-216-617-11	METAL CHIP	39	0.50%	1/10W
R5297	1-216-617-11	METAL CHIP	39	0.50%	1/10W
R5298	1-216-617-11	METAL CHIP	39	0.50%	1/10W
R5301	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R5302	1-218-776-11	METAL CHIP	1M	0.50%	1/10W
R5303	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R5304	1-216-679-11	METAL CHIP	15K	0.50%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R5305	1-218-776-11	METAL CHIP	1M	0.50%	1/10W
R5306	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R5307	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R5308	1-218-776-11	METAL CHIP	1M	0.50%	1/10W
R5309	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R5310	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R5409	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5410	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5411	1-216-295-91	SHORT	0		
R5414	1-216-295-91	SHORT	0		
R5415	1-216-295-91	SHORT	0		
R5417	1-216-295-91	SHORT	0		
R5420	1-216-295-91	SHORT	0		
R5422	1-216-295-91	SHORT	0		
R5424	1-216-295-91	SHORT	0		
R5425	1-216-295-91	SHORT	0		
R5426	1-216-295-91	SHORT	0		
R5427	1-216-295-91	SHORT	0		
R5428	1-216-295-91	SHORT	0		
R5429	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5430	1-216-295-91	SHORT	0		
R5431	1-216-295-91	SHORT	0		
R5432	1-216-295-91	SHORT	0		
R5433	1-216-295-91	SHORT	0		
R5434	1-216-295-91	SHORT	0		
R5435	1-216-295-91	SHORT	0		
R5436	1-216-295-91	SHORT	0		
R5437	1-216-295-91	SHORT	0		
R5438	1-216-295-91	SHORT	0		
R5442	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5443	1-216-295-91	SHORT	0		
R5444	1-216-295-91	SHORT	0		
R5445	1-216-295-91	SHORT	0		
R5474	1-216-075-00	RES,CHIP	12K	5%	1/10W
R5478	1-216-190-00	RES,CHIP	470	5%	1/8W
R5479	1-216-190-00	RES,CHIP	470	5%	1/8W
R5480	1-216-190-00	RES,CHIP	470	5%	1/8W
R5481	1-216-190-00	RES,CHIP	470	5%	1/8W
R5482	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5483	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5484	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5485	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5486	1-216-295-91	SHORT	0		
R5487	1-216-295-91	SHORT	0		
R5488	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5489	1-216-295-91	SHORT	0		
R5501	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5502	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5503	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5504	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5505	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5506	1-216-009-00	RES,CHIP	22	5%	1/10W
R5507	1-216-009-00	RES,CHIP	22	5%	1/10W
R5508	1-216-009-00	RES,CHIP	22	5%	1/10W
R5509	1-216-009-00	RES,CHIP	22	5%	1/10W
R5510	1-216-009-00	RES,CHIP	22	5%	1/10W
R5511	1-216-009-00	RES,CHIP	22	5%	1/10W
R5512	1-216-009-00	RES,CHIP	22	5%	1/10W
R5513	1-216-009-00	RES,CHIP	22	5%	1/10W
R5514	1-216-009-00	RES,CHIP	22	5%	1/10W
R5515	1-216-009-00	RES,CHIP	22	5%	1/10W
R5516	1-216-009-00	RES,CHIP	22	5%	1/10W
R5517	1-216-009-00	RES,CHIP	22	5%	1/10W
R5518	1-216-025-91	RES,CHIP	100	5%	1/10W
R5519	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5520	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5521	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5522	1-216-025-91	RES,CHIP	100	5%	1/10W
R5523	1-216-025-91	RES,CHIP	100	5%	1/10W
R5524	1-216-025-91	RES,CHIP	100	5%	1/10W
R5525	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5526	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5527	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5528	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5529	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5530	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R5531	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5532	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5533	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5534	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5535	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5536	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R5537	1-216-295-91	SHORT	0		
R5538	1-216-295-91	SHORT	0		
R5539	1-216-295-91	SHORT	0		
R5540	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5541	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5542	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5543	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5544	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5545	1-216-009-00	RES,CHIP	22	5%	1/10W
R5546	1-216-009-00	RES,CHIP	22	5%	1/10W
R5547	1-216-009-00	RES,CHIP	22	5%	1/10W
R5548	1-216-009-00	RES,CHIP	22	5%	1/10W
R5549	1-216-009-00	RES,CHIP	22	5%	1/10W
R5550	1-216-009-00	RES,CHIP	22	5%	1/10W
R5551	1-216-009-00	RES,CHIP	22	5%	1/10W
R5552	1-216-009-00	RES,CHIP	22	5%	1/10W
R5553	1-216-009-00	RES,CHIP	22	5%	1/10W
R5554	1-216-009-00	RES,CHIP	22	5%	1/10W
R5555	1-216-009-00	RES,CHIP	22	5%	1/10W
R5556	1-216-009-00	RES,CHIP	22	5%	1/10W
R5557	1-216-025-91	RES,CHIP	100	5%	1/10W
R5558	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5559	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5560	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5561	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5562	1-216-630-11	METAL CHIP	130	0.50%	1/10W
R5563	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5564	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5565	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5566	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5567	1-216-097-91	RES,CHIP	100K	5%	1/10W
R5568	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5569	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R5570	1-216-009-00	RES,CHIP	22	5%	1/10W
R5571	1-216-009-00	RES,CHIP	22	5%	1/10W

C GAA

REF NO.	PART NO.	DESCRIPTION			REMARK
R5572	1-216-009-00	RES,CHIP	22	5%	1/10W
R5573	1-216-009-00	RES,CHIP	22	5%	1/10W
R5574	1-216-009-00	RES,CHIP	22	5%	1/10W
R5575	1-216-009-00	RES,CHIP	22	5%	1/10W
R5576	1-216-009-00	RES,CHIP	22	5%	1/10W
R5577	1-216-009-00	RES,CHIP	22	5%	1/10W
R5578	1-216-009-00	RES,CHIP	22	5%	1/10W
R5579	1-216-009-00	RES,CHIP	22	5%	1/10W
R5580	1-216-009-00	RES,CHIP	22	5%	1/10W
R5581	1-216-009-00	RES,CHIP	22	5%	1/10W
R5582	1-216-025-91	RES,CHIP	100	5%	1/10W
R5583	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5584	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5585	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5586	1-216-296-91	SHORT	0		
R5587	1-216-296-91	SHORT	0		
R5588	1-216-296-91	SHORT	0		
R5589	1-216-296-91	SHORT	0		
R5590	1-216-296-91	SHORT	0		
R5591	1-216-296-91	SHORT	0		
R5592	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R5593	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5594	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5595	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5596	1-216-073-00	RES,CHIP	10K	5%	1/10W
R5597	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5598	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R5599	1-216-625-11	METAL CHIP	82	0.50%	1/10W
		<THERMISTOR>			
TH102	1-806-715-11	THERMISTOR			

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* A-1316-401-A	GAA COMPL		
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1-533-189-11	HOLDER, FUSE		
1-543-923-11	FERRITE	0μH	
3-179-084-01	LEVER (R), PC BOARD		
3-179-085-01	LEVER (L), PC BOARD		
4-382-854-11	SCREW (M3X10), P, SW (+)		
4-382-854-51	SCREW (M3X8), P, SW (+)		
	<CAPACITOR>		

C7001	⚠	1-113-511-11	FILM	0.47MF	20%	275V
C7002		1-137-477-11	FILM	0.47MF	10%	400V1
C7003		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7004		1-104-330-11	CERAMIC	470PF	10%	1KV
C7005		1-104-330-11	CERAMIC	470PF	10%	1KV
C7007		1-117-751-11	ELECT(BLOCK) 220MF	20%		450V
C7008		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7009		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7010		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7031	⚠	1-113-511-11	FILM	0.47MF	20%	275V
C7032		1-137-477-11	FILM	0.47MF	10%	400V
C7033		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7034		1-104-330-11	CERAMIC	470PF	10%	1KV
C7035		1-104-330-11	CERAMIC	470PF	10%	1KV-5
C7037		1-117-751-11	ELECT(BLOCK) 220MF	20%		450V
C7038		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7039		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7040		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7061	⚠	1-113-511-11	FILM	0.47MF	20%	275V
C7062		1-137-477-11	FILM	0.47MF	10%	400V
C7063		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7064		1-104-330-11	CERAMIC	470PF	10%	1KV
C7065		1-104-330-11	CERAMIC	470PF	10%	1KV
C7067		1-117-751-11	ELECT(BLOCK) 220MF	20%		450V
C7068		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7069		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7070		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
		<CONNECTOR>				
CN7001		1-778-393-11	PIN, PC CONNECTOR 96P			
CN7002		* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7003		* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7032		* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7033		* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7062		* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7063		* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
		<DIODE>				
D7001	⚠	8-719-066-75	DIODE D6SB80			
D7002		8-719-066-76	DIODE TF861S			
D7003		8-719-055-30	DIODE D1FS4A-TA			
D7004		8-719-055-30	DIODE D1FS4A-TA			
D7005		8-719-055-30	DIODE D1FS4A-TA			
D7006		8-719-055-30	DIODE D1FS4A-TA			
D7007		8-719-060-06	DIODE FSF10A60			
D7008		1-803-136-11	VARISTOR ZP2600			
D7009		1-803-136-11	VARISTOR ZP2600			
D7031	⚠	8-719-066-75	DIODE D6SB80			
D7032		8-719-066-76	DIODE TF861S			
D7033		8-719-055-30	DIODE D1FS4A-TA			
D7034		8-719-055-30	DIODE D1FS4A-TA			
D7035		8-719-055-30	DIODE D1FS4A-TA			
D7036		8-719-055-30	DIODE D1FS4A-TA			
D7037		8-719-060-06	DIODE FSF10A60			
D7038		1-803-136-11	VARISTOR ZP2600			
D7039		1-803-136-11	VARISTOR ZP2600			
D7061	⚠	8-719-066-75	DIODE D6SB80			
D7062		8-719-066-76	DIODE TF861S			
D7063		8-719-055-30	DIODE D1FS4A-TA			
D7064		8-719-055-30	DIODE D1FS4A-TA			
D7065		8-719-055-30	DIODE D1FS4A-TA			
D7066		8-719-055-30	DIODE D1FS4A-TA			
D7067		8-719-060-06	DIODE FSF10A60			
D7068		1-803-136-11	VARISTOR ZP2600			
D7069		1-803-136-11	VARISTOR ZP2600			
		<FUSE>				
F7001	⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V			
F7031	⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V			
F7061	⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V			

REF NO.		PART NO.	DESCRIPTION				REMARK
			<COIL>				
L7001	⚠	1-416-907-11	INDUCTOR	750µH			
L7031	⚠	1-416-907-11	INDUCTOR	750µH			
L7061	⚠	1-416-907-11	INDUCTOR	750µH			
			<TRANSISTOR>				
Q7001		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7002		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7031		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7032		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7061		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7062		8-729-043-15	TRANSISTOR 2SK3013F-02				
			<RESISTOR>				
R7001		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7002		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7004		1-217-156-00	REGISTER	0.22	10%	5W	F
R7005		1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R7006		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7007		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7008		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7009		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7010		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7011		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7012		1-218-231-11	RES,CHIP	1	10%	1/2W	
R7013		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7031		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7032		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7034		1-217-156-00	REGISTER	0.22	10%	5W	F
R7035		1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R7036		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7037		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7038		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7039		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7040		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7041		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7042		1-218-231-11	RES,CHIP	1	10%	1/2W	
R7043		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7061		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7062		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7064		1-217-156-00	REGISTER	0.22	10%	5W	F
R7065		1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R7066		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7067		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7068		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7069		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7070		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7071		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7072		1-218-231-11	RES,CHIP	1	10%	1/2W	
R7073		1-216-487-11	METAL OXIDE	12K	5%	3W	F

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* A-1316-402-A		GAB COMPL	
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1-533-189-11		HOLDER, FUSE	
1-543-923-11		FERRITE	0µH
3-179-084-01		LEVER (R), PC BOARD	
3-179-085-01		LEVER (L), PC BOARD	
4-382-854-11		SCREW (M3X10), P, SW (+)	

REF NO.		PART NO.	DESCRIPTION				REMARK
			<CAPACITOR>				
C7101	⚠	1-113-511-11	FILM	0.47MF	20%	275V	
C7102		1-137-477-11	FILM	0.47MF	10%	400V	
C7103		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7104		1-104-330-11	CERAMIC	470PF	10%	1KV	
C7105		1-104-330-11	CERAMIC	470PF	10%	1KV	
C7107		1-117-751-11	ELECT(BLOCK)	220MF	20%	450V	
C7108		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7109		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7110		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7151	⚠	1-113-511-11	FILM	0.47MF	20%	275V	
C7152		1-137-477-11	FILM	0.47MF	10%	400V	
C7153		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7154		1-104-330-11	CERAMIC	470PF	10%	1KV	
C7155		1-104-330-11	CERAMIC	470PF	10%	1KV	
C7157		1-117-751-11	ELECT(BLOCK)	220MF	20%	450V	
C7158		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7159		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7160		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7201		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7202		1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C7203		1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	
C7204		1-107-889-11	ELECT	220MF	20%	25V	
C7205		1-165-319-11	CERAMIC CHIP	0.1MF	50V		
C7206		1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C7207		1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C7208		1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	
			<CONNECTOR>				
CN7101		1-778-393-11	PIN, PC CONNECTOR 96P				
CN7102		* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P				
CN7103		* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P				
CN7152		* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P				
CN7153		* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P				
CN7201		* 1-774-246-11	CONNECTOR, BOARD TO BOARD 10P				
			<DIODE>				
D7101	⚠	8-719-066-75	DIODE D6SB80				
D7102		8-719-066-76	DIODE TF861S				
D7103		8-719-055-30	DIODE D1FS4A-TA				
D7104		8-719-055-30	DIODE D1FS4A-TA				
D7105		8-719-055-30	DIODE D1FS4A-TA				
D7106		8-719-055-30	DIODE D1FS4A-TA				
D7107		8-719-060-06	DIODE FSF10A60				
D7108		1-803-136-11	VARISTOR ZP2600				
D7109		1-803-136-11	VARISTOR ZP2600				
D7151	⚠	8-719-066-75	DIODE D6SB80				
D7152		8-719-066-76	DIODE TF861S				
D7153		8-719-055-30	DIODE D1FS4A-TA				
D7154		8-719-055-30	DIODE D1FS4A-TA				
D7155		8-719-055-30	DIODE D1FS4A-TA				
D7156		8-719-055-30	DIODE D1FS4A-TA				
D7157		8-719-060-06	DIODE FSF10A60				
D7158		1-803-136-11	VARISTOR ZP2600				
D7159		1-803-136-11	VARISTOR ZP2600				

GAB GB

REF NO.		PART NO.	DESCRIPTION				REMARK
			<FUSE>				
F7101	⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V				
F7151	⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V				
			<IC>				
IC7201		8-759-485-61	IC FA5331P				
			<COIL>				
L7101	⚠	1-416-907-11	INDUCTOR	750µH			
L7151	⚠	1-416-907-11	INDUCTOR	750µH			
			<TRANSISTOR>				
Q7101		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7102		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7151		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7152		8-729-043-15	TRANSISTOR 2SK3013F-02				
Q7201		8-729-230-49	TRANSISTOR 2SC2712-YG				
			<RESISTOR>				
R7101		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7102		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7104		1-217-156-00	REGISTER	0.22	10%	5W	F
R7105		1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R7106		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7107		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7108		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7109		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7110		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7111		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7112		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7151		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7152		1-219-363-11	FUSIBLE	5.6	5%	5W	F
R7154		1-217-156-00	REGISTER	0.22	10%	5W	F
R7155		1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R7156		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7157		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7158		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7159		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7160		1-216-003-11	RES,CHIP	12	5%	1/10W	
R7161		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7162		1-218-231-11	RES,CHIP	1	10%	1/2W	
R7163		1-216-487-11	METAL OXIDE	12K	5%	3W	F
R7201		1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7203		1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R7204		1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R7205		1-216-005-00	RES,CHIP	15	5%	1/10W	
R7206		1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7207		1-216-025-91	RES,CHIP	100	5%	1/10W	
R7208		1-216-089-91	RES,CHIP	47K	5%	1/10W	
R7209		1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7210		1-220-337-11	RES,CHIP	270K	5%	1/2W	
R7211		1-220-336-11	RES,CHIP	220K	5%	1/2W	
R7212		1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7213		1-220-337-11	RES,CHIP	270K	5%	1/2W	
R7214		1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R7215		1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R7216		1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R7217		1-216-073-00	RES,CHIP	10K	5%	1/10W	

REF NO.	PART NO.	DESCRIPTION			REMARK
R7218	1-216-101-00	RES,CHIP	150K	5%	1/10W
R7219	1-216-085-00	RES,CHIP	33K	5%	1/10W
R7220	1-216-629-11	METAL CHIP	120	0.50%	1/10W
R7221	1-220-336-11	RES,CHIP	220K	5%	1/2W
R7222	1-220-336-11	RES,CHIP	220K	5%	1/2W
R7223	1-216-077-00	RES,CHIP	15K	5%	1/10W
R7224	1-216-089-91	RES,CHIP	47K	5%	1/10W

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*	A-1316-403-A	GB COMPL			
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	3-179-084-01	LEVER (R), PC BOARD			
	3-179-085-01	LEVER (L), PC BOARD			
*	4-041-261-01	SHEET, INSULATING			
*	4-057-443-01	HOLDER (CF), TR			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-51	SCREW (M3X8), P, SW (+)			
		<CAPACITOR>			
C7501	1-107-824-11	CERAMIC	220PF	5%	1KV
C7502	1-107-792-11	CERAMIC	100PF	5%	1KV
C7503	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7504	1-107-888-11	ELECT	47MF	20%	25V
C7505	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7506	1-107-914-11	ELECT	1000MF	20%	25V
C7507	1-113-903-11	CERAMIC	0.001MF	20%	250V
C7508	1-107-906-11	ELECT	10MF	20%	50V
C7509	1-115-742-11	ELECT	0.0027F	20%	10V
C7510	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7512	1-115-742-11	ELECT	0.0027F	20%	10V
C7513	1-137-484-11	FILM	0.47MF	10%	630V
C7514	1-107-792-11	CERAMIC	100PF	5%	1KV
C7515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C7516	1-115-802-11	ELECT	56MF	20%	35V
C7601	1-107-824-11	CERAMIC	220PF	5%	1KV
C7602	1-107-792-11	CERAMIC	100PF	5%	1KV
C7603	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7604	1-107-888-11	ELECT	47MF	20%	25V
C7605	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7606	1-115-742-11	ELECT	0.0027F	20%	10V
C7608	1-115-794-51	ELECT	0.0027F	20%	25V
C7610	1-115-786-11	ELECT	560MF	20%	25V
C7612	1-113-903-11	CERAMIC	0.001MF	20%	250V
C7614	1-107-906-11	ELECT	10MF	20%	50V
C7615	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7616	1-115-734-11	ELECT	680MF	20%	10V
C7617	1-115-790-11	ELECT	0.0015F	20%	25V
C7618	1-111-087-11	ELECT	330MF	20%	25V
C7620	1-107-792-11	CERAMIC	100PF	5%	1KV
C7621	1-130-202-00	FILM	0.022MF	5%	400V
C7801	1-107-824-11	CERAMIC	220PF	5%	1KV
C7802	1-107-792-11	CERAMIC	100PF	5%	1KV
C7803	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7804	1-107-888-11	ELECT	47MF	20%	25V
C7805	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C7806	1-113-903-11	CERAMIC	0.001MF	20%	250V
C7807	1-110-994-11	ELECT	0.0068F	20%	6.3V

REF NO.	PART NO.	DESCRIPTION				REMARK
C7808	1-115-746-11	ELECT	0.0056F	20%	10V	
C7809	1-110-994-11	ELECT	0.0068F	20%	6.3V	
C7810	1-115-742-11	ELECT	0.0027F	20%	10V	
C7811	1-107-906-11	ELECT	10MF	20%	50V	
C7812	1-115-742-11	ELECT	0.0027F	20%	10V	
C7813	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V	
C7815	1-115-742-11	ELECT	0.0027F	20%	10V	
C7816	1-115-718-51	ELECT	0.0039F	20%	6.3V	
C7817	1-115-737-11	ELECT	0.001F	20%	10V	
C7818	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V	
C7819	1-110-987-11	ELECT	0.0022F	20%	6.3V	
C7820	1-115-710-31	ELECT	0.001F	20%	6.3V	
C7822	1-107-792-11	CERAMIC	100PF	5%	1KV	
C7823	1-130-202-00	FILM	0.022MF	5%	400V	
C7824	1-115-818-51	ELECT	0.0018F	20%	35V	
C7825	1-115-811-11	ELECT	560MF	20%	35V	
C7826	1-110-994-11	ELECT	0.0068F	20%	6.3V	
		<CONNECTOR>				
CN7501	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P				
CN7502	1-778-393-11	PIN, PC CONNECTOR 96P				
		<DIODE>				
D7501	8-719-059-23	DIODE P6KE200AG23				
D7502	8-719-059-23	DIODE P6KE200AG23				
D7503	8-719-059-23	DIODE P6KE200AG23				
D7504	8-719-059-23	DIODE P6KE200AG23				
D7505	8-719-947-06	DIODE RGP10JPKG23				
D7506	8-719-300-33	DIODE RU-3AM				
D7507	8-719-061-49	DIODE FCH20A10				
D7508	8-719-050-21	DIODE FCQ20A04				
D7509	8-719-106-35	DIODE RD8.2M-B2				
D7601	8-719-059-23	DIODE P6KE200AG23				
D7602	8-719-059-23	DIODE P6KE200AG23				
D7603	8-719-059-23	DIODE P6KE200AG23				
D7604	8-719-059-23	DIODE P6KE200AG23				
D7605	8-719-947-06	DIODE RGP10JPKG23				
D7606	8-719-300-33	DIODE RU-3AM				
D7608	8-719-071-90	DIODE 11DQ10-TA2B5				
D7609	8-719-510-41	DIODE D10SC9M				
D7610	8-719-050-21	DIODE FCQ20A04				
D7611	8-719-106-35	DIODE RD8.2M-B2				
D7801	8-719-059-23	DIODE P6KE200AG23				
D7802	8-719-059-23	DIODE P6KE200AG23				
D7803	8-719-059-23	DIODE P6KE200AG23				
D7804	8-719-059-23	DIODE P6KE200AG23				
D7805	8-719-947-06	DIODE RGP10JPKG23				
D7806	8-719-300-33	DIODE RU-3AM				
D7807	8-719-050-21	DIODE FCQ20A04				
D7808	8-719-050-21	DIODE FCQ20A04				
D7809	8-719-510-13	DIODE D10SC4MR				
D7812	8-719-055-30	DIODE D1FS4A-TA				
D7813	8-719-104-34	DIODE 1S2836				
D7814	8-719-106-35	DIODE RD8.2M-B2				
D7815	8-719-071-53	DIODE F16P20FS				
		<IC>				
IC7501	8-759-490-02	IC TOP224Y-BB				
IC7502	8-759-388-23	IC TL431BCDR2				
IC7503	8-759-098-24	IC PQ30RV11				
IC7601	8-759-548-34	IC TOP227Y-BB				
IC7602	8-759-388-23	IC TL431BCDR2				
IC7801	8-759-548-33	IC TOP226Y-BB				
IC7802	8-759-388-23	IC TL431BCDR2				
IC7803	8-759-548-32	IC LT1269CT				
		<COIL>				
L7501	1-406-659-51	INDUCTOR	10µH			
L7602	1-412-525-31	INDUCTOR	10µH			
L7603	1-406-971-51	INDUCTOR	10µH			
L7604	1-406-659-51	INDUCTOR	10µH			
L7801	1-406-971-51	INDUCTOR	10µH			
L7802	1-412-525-31	INDUCTOR	10µH			
L7803	1-416-908-11	INDUCTOR	10µH			
L7804	1-406-659-51	INDUCTOR	10µH			
L7805	1-412-519-11	INDUCTOR	3.3µH			
L7806	1-412-525-31	INDUCTOR	10µH			
		<PHOTO COUPLER>				
PH7501	8-749-010-64	PHOTO COUPLER PC123F2				
PH7502	8-749-010-64	PHOTO COUPLER PC123F2				
PH7601	8-749-010-64	PHOTO COUPLER PC123F2				
PH7801	8-749-010-64	PHOTO COUPLER PC123F2				
		<IC LINK>				
PS7501 ⚠	1-533-597-31	LINK, IC				
PS7602 ⚠	1-576-124-11	LINK, IC				
PS7603 ⚠	1-533-790-31	LINK, IC				
PS7604 ⚠	1-533-595-31	LINK, IC				
PS7801 ⚠	1-533-282-21	LINK, IC				
PS7802 ⚠	1-576-288-31	RINK, IC				
PS7803 ⚠	1-533-595-31	LINK, IC				
PS7804 ⚠	1-533-596-21	LINK, IC				
PS7805 ⚠	1-533-282-21	LINK, IC				
		<TRANSISTOR>				
Q7501	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q7502	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q7503	8-729-216-22	TRANSISTOR 2SA1162-G				
Q7504	8-729-216-22	TRANSISTOR 2SA1162-G				
Q7801	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
R7501	1-217-418-61	FUSIBLE	0.47	10%	1/2W	F
R7502	1-249-377-11	CARBON	0.47	5%	1/4W	F
R7503	1-260-127-11	CARBON	220K	5%	1/2W	
R7504	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R7505	1-216-025-91	RES,CHIP	100	5%	1/10W	
R7506	1-260-127-11	CARBON	220K	5%	1/2W	
R7507	1-216-025-91	RES,CHIP	100	5%	1/10W	
R7508	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R7509	1-216-311-00	RES,CHIP	6.8	5%	1/10W	
R7510	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R7511	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R7512	1-220-267-11	RES,CHIP	180	5%	1/2W	
R7513	1-220-221-11	RES,CHIP	100	5%	1/2W	
R7514	1-220-267-11	RES,CHIP	180	5%	1/2W	
R7515	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	

GB GC GF GM

REF NO.		PART NO.	DESCRIPTION				REMARK
R7516		1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R7517		1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R7519		1-216-081-00	RES,CHIP	22K	5%	1/10W	
R7520		1-216-081-00	RES,CHIP	22K	5%	1/10W	
R7521		1-216-073-00	RES,CHIP	10K	5%	1/10W	
R7522		1-216-073-00	RES,CHIP	10K	5%	1/10W	
R7523		1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R7524		1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R7525		1-260-127-11	CARBON	220K	5%	1/2W	
R7526		1-260-127-11	CARBON	220K	5%	1/2W	
R7527		1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R7528		1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R7529		1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R7601		1-249-377-11	CARBON	0.47	5%	1/4W	F
R7602		1-216-311-00	RES,CHIP	6.8	5%	1/10W	
R7603		1-216-049-91	RES,CHIP	1K	5%	1/10W	
R7604		1-218-326-11	RES,CHIP	470	5%	1/2W	
R7605		1-218-326-11	RES,CHIP	470	5%	1/2W	
R7606		1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R7607		1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R7608		1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R7609		1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R7610		1-215-903-11	METAL OXIDE	68K	5%	2W	F
R7611		1-216-025-91	RES,CHIP	100	5%	1/10W	
R7801		1-249-377-11	CARBON	0.47	5%	1/4W	F
R7802		1-216-311-00	RES,CHIP	6.8	5%	1/10W	
R7803		1-216-049-91	RES,CHIP	1K	5%	1/10W	
R7804		1-220-221-11	RES,CHIP	100	5%	1/2W	
R7805		1-220-267-11	RES,CHIP	180	5%	1/2W	
R7806		1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R7807		1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R7809		1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R7810		1-216-049-91	RES,CHIP	1K	5%	1/10W	
R7814		1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R7815		1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R7816		1-216-075-00	RES,CHIP	12K	5%	1/10W	
R7817		1-215-903-11	METAL OXIDE	68K	5%	2W	F
R7818		1-216-025-91	RES,CHIP	100	5%	1/10W	
			<TRANSFORMER>				
T7501	⚠	1-433-559-11	TRANSFORMER, CONVERTER (SRT)				
T7601	⚠	1-433-567-11	TRANSFORMER, CONVERTER (SRT)				
T7801	⚠	1-433-566-11	TRANSFORMER, CONVERTER (SRT)				

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GC MOUNT
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<CAPACITOR>

C7201	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C7202	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C7203	1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	
C7204	1-107-889-11	ELECT	220MF	20%	25V	
C7205	1-165-319-11	CERAMIC CHIP	0.1MF	50V		
C7206	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C7207	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C7208	1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	

REF NO.	PART NO.	DESCRIPTION				REMARK
		<CONNECTOR>				
CN7201	* 1-774-246-11	CONNECTOR, BOARD TO BOARD 10P				
		<IC>				
IC7201	8-759-485-61	IC FA5331P				
		<TRANNSISTOR>				
Q7201	8-729-230-49	TRANSISTOR 2SC2712-YG				
		<RESISTOR>				
R7201	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7203	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R7204	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R7205	1-216-005-00	RES,CHIP	15	5%	1/10W	
R7206	1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7207	1-216-025-91	RES,CHIP	100	5%	1/10W	
R7208	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R7209	1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7210	1-220-337-11	RES,CHIP	270K	5%	1/2W	
R7211	1-220-336-11	RES,CHIP	220K	5%	1/2W	
R7212	1-220-335-11	RES,CHIP	180K	5%	1/2W	
R7213	1-220-337-11	RES,CHIP	270K	5%	1/2W	
R7214	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R7215	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R7216	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R7217	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R7218	1-216-101-00	RES,CHIP	150K	5%	1/10W	
R7219	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R7220	1-216-629-11	METAL CHIP	120	0.50%	1/10W	
R7221	1-220-336-11	RES,CHIP	220K	5%	1/2W	
R7222	1-220-336-11	RES,CHIP	220K	5%	1/2W	
R7223	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R7224	1-216-089-91	RES,CHIP	47K	5%	1/10W	

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* 1-670-882-11	PWB, GF	
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* 1-533-701-11	HOLDER, FUSE	
	<CONNECTOR>	
CN101	* 1-580-230-21	PIN, CONNECTOR (PC BOARD) 2P
CN102	* 1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P

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* A-1311-694-A	GM MOUNT	
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* 4-374-846-01	COVER, CAPACITOR, CAP TYPE	

<CAPACITOR>

C201	⚠	1-113-511-11	FILM	0.47MF	20%	275V
C202	⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C203	⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C204	⚠	1-107-533-11	FILM	1MF	20%	250V
C205	⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C206	⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V

REF NO.		PART NO.	DESCRIPTION			REMARK
C207	⚠	1-113-511-11	FILM	0.47MF	20%	275V
			<CONNECTOR>			
CN202		* 1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CN203		1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN204		1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN205		1-778-391-11	SOCKET, PC CONNECTOR 96P			
			<COIL>			
L201	⚠	1-202-882-51	INDUCTOR	168µH		
L202	⚠	1-202-882-51	INDUCTOR	168µH		
			<RESISTOR>			
R201	⚠	1-202-847-00	SOLID	560K	20%	1/2W
R202	⚠	1-202-847-00	SOLID	560K	20%	1/2W
			<TRANSFORMER>			
T201	⚠	1-433-558-11	TRANSFORMER, LINE FILTER			
T202	⚠	1-431-161-11	TRANSFORMER, LINE FILTER			
			<VARISTOR>			
VDR201	⚠	1-801-073-41	VARISTOR ERZV14D471			
**********						
		* A-1375-180-A	H COMPL *******			
		4-362-612-00	HOLDER (B), LED			
			<CAPACITOR>			
C6001		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6002		1-164-506-11	CERAMIC CHIP	4.7MF	16V	
C6003		1-128-391-11	ELECT CHIP	330MF	20%	6.3V
C6004		1-128-391-11	ELECT CHIP	330MF	20%	6.3V
C6201		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6202		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6203		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6204		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6205		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6206		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6207		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6208		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6209		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6305		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6306		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6307		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6308		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6309		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6310		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6311		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6312		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6313		1-164-506-11	CERAMIC CHIP	4.7MF	16V	
C6314		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6315		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6316		1-164-506-11	CERAMIC CHIP	4.7MF	16V	
C6321		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6322		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6323		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6324		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6325		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6326		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6327		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6328		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6329		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6330		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6331		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6332		1-164-506-11	CERAMIC CHIP	4.7MF	16V	
C6333		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6334		1-164-506-11	CERAMIC CHIP	4.7MF	16V	
C6335		1-128-391-11	ELECT CHIP	330MF	20%	6.3V
C6336		1-128-391-11	ELECT CHIP	330MF	20%	6.3V
			<CONNECTOR>			
CN6001		* 1-580-055-21	PIN, CONNECTOR 2P			
CN6002		1-695-223-21	PIN, CONNECTOR (SMD) 10P			
CN6003		* 1-691-551-11	PIN, CONNECTOR (SMD) 8P			
CN6004		* 1-580-789-21	PIN, CONNECTOR (SMD) 6P			
			<DIODE>			
D6001		8-719-800-76	DIODE 1SS226			
D6002		8-719-800-76	DIODE 1SS226			
D6003		8-719-800-76	DIODE 1SS226			
D6004		8-719-800-76	DIODE 1SS226			
D6005		8-719-800-76	DIODE 1SS226			
D6006		8-719-800-76	DIODE 1SS226			
D6007		8-719-800-76	DIODE 1SS226			
D6008		8-719-800-76	DIODE 1SS226			
D6009		8-719-800-76	DIODE 1SS226			
D6010		8-719-800-76	DIODE 1SS226			
D6011		8-719-800-76	DIODE 1SS226			
D6012		8-719-800-76	DIODE 1SS226			
D6013		8-719-800-76	DIODE 1SS226			
D6014		8-719-800-76	DIODE 1SS226			
D6015		8-719-800-76	DIODE 1SS226			
D6016		8-719-800-76	DIODE 1SS226			
D6017		8-719-800-76	DIODE 1SS226			
D6201		8-719-976-22	DIODE MU03-2205			
D6202		8-719-976-22	DIODE MU03-2205			
D6203		8-719-914-43	DIODE DAN202K			
D6204		8-719-914-43	DIODE DAN202K			
D6205		8-719-976-22	DIODE MU03-2205			
D6206		8-719-976-22	DIODE MU03-2205			
D6301		8-719-045-61	DIODE SEC1901C			
D6302		8-719-045-61	DIODE SEC1901C			
D6303		8-719-045-61	DIODE SEC1901C			
D6304		8-719-045-61	DIODE SEC1901C			
D6305		8-719-045-60	DIODE SEC1401C			
D6306		8-719-045-60	DIODE SEC1401C			
D6307		8-719-045-61	DIODE SEC1901C			
D6308		8-719-045-61	DIODE SEC1901C			
D6309		8-719-045-61	DIODE SEC1901C			
D6310		8-719-045-61	DIODE SEC1901C			
D6311		8-719-045-60	DIODE SEC1401C			
D6312		8-719-045-60	DIODE SEC1401C			
D6313		8-719-045-61	DIODE SEC1901C			
D6314		8-719-045-61	DIODE SEC1901C			

H

REF NO.	PART NO.	DESCRIPTION	REMARK
D6315	8-719-045-61	DIODE SEC1901C	
D6316	8-719-045-61	DIODE SEC1901C	
D6317	8-719-045-60	DIODE SEC1401C	
D6318	8-719-045-60	DIODE SEC1401C	
D6319	8-719-045-61	DIODE SEC1901C	
D6320	8-719-045-61	DIODE SEC1901C	
D6321	8-719-045-61	DIODE SEC1901C	
D6322	8-719-045-61	DIODE SEC1901C	
D6323	8-719-045-60	DIODE SEC1401C	
D6324	8-719-045-60	DIODE SEC1401C	
D6325	8-719-045-61	DIODE SEC1901C	
D6326	8-719-045-61	DIODE SEC1901C	
D6327	8-719-045-61	DIODE SEC1901C	
D6328	8-719-045-61	DIODE SEC1901C	
D6329	8-719-045-60	DIODE SEC1401C	
D6330	8-719-045-60	DIODE SEC1401C	
D6331	8-719-045-61	DIODE SEC1901C	
D6332	8-719-915-45	DIODE SLP162B	
D6333	8-719-045-61	DIODE SEC1901C	
D6334	8-719-045-61	DIODE SEC1901C	
D6335	8-719-045-61	DIODE SEC1901C	
D6336	8-719-918-87	DIODE BG5531K	
		<DELAY LINE>	
DL6201	8-719-072-87	DIODE MU04-3101	
DL6202	8-719-071-09	DIODE MU04-2105	
DL6203	8-719-071-09	DIODE MU04-2105	
DL6204	8-719-071-09	DIODE MU04-2105	
DL6205	8-719-071-09	DIODE MU04-2105	
		<IC>	
IC6001	8-742-088-10	HYB IC SBX1780-51(10)	
IC6301	8-759-470-51	IC MB88141APFV-ER	
IC6302	8-759-174-16	IC TC74VHC244F	
IC6303	8-759-470-51	IC MB88141APFV-ER	
IC6304	8-759-174-16	IC TC74VHC244F	
		<TRANSISTOR>	
Q6001	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6002	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6205	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6206	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6207	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6208	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6209	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6211	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6213	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6214	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6215	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6216	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6217	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6218	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6301	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6302	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6303	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6304	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6305	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6306	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6307	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6308	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6309	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6310	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6311	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6312	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6313	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6314	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6315	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6316	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6317	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R6002	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6003	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6004	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6005	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6006	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6007	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6008	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6009	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6010	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6011	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6012	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6013	1-216-023-00	RES,CHIP 82 5% 1/10W	
R6015	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6016	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6017	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6018	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6019	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6020	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6021	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6022	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6023	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6024	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6025	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6026	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6027	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6028	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6029	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6030	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6031	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6101	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R6102	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R6103	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R6104	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6105	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6106	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6107	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R6108	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R6109	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R6110	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R6111	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	

REF NO.	PART NO.	DESCRIPTION			REMARK
R6112	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R6113	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R6114	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R6115	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R6116	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R6117	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R6118	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R6119	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R6120	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R6121	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R6122	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R6123	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R6124	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R6125	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6126	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6127	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6201	1-216-041-00	RES,CHIP	470	5%	1/10W
R6202	1-216-041-00	RES,CHIP	470	5%	1/10W
R6203	1-216-041-00	RES,CHIP	470	5%	1/10W
R6204	1-216-041-00	RES,CHIP	470	5%	1/10W
R6205	1-216-041-00	RES,CHIP	470	5%	1/10W
R6206	1-216-041-00	RES,CHIP	470	5%	1/10W
R6207	1-216-041-00	RES,CHIP	470	5%	1/10W
R6208	1-216-041-00	RES,CHIP	470	5%	1/10W
R6209	1-216-041-00	RES,CHIP	470	5%	1/10W
R6210	1-216-041-00	RES,CHIP	470	5%	1/10W
R6211	1-216-041-00	RES,CHIP	470	5%	1/10W
R6212	1-216-041-00	RES,CHIP	470	5%	1/10W
R6213	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6214	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6215	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6216	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6217	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6218	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6219	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6220	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6221	1-216-041-00	RES,CHIP	470	5%	1/10W
R6222	1-216-041-00	RES,CHIP	470	5%	1/10W
R6223	1-216-041-00	RES,CHIP	470	5%	1/10W
R6224	1-216-041-00	RES,CHIP	470	5%	1/10W
R6225	1-216-041-00	RES,CHIP	470	5%	1/10W
R6226	1-216-041-00	RES,CHIP	470	5%	1/10W
R6227	1-216-041-00	RES,CHIP	470	5%	1/10W
R6228	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6229	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6230	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6231	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6232	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6233	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6234	1-216-041-00	RES,CHIP	470	5%	1/10W
R6235	1-216-041-00	RES,CHIP	470	5%	1/10W
R6236	1-216-041-00	RES,CHIP	470	5%	1/10W
R6237	1-216-041-00	RES,CHIP	470	5%	1/10W
R6238	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6239	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6240	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6241	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6301	1-216-035-00	RES,CHIP	270	5%	1/10W
R6302	1-216-035-00	RES,CHIP	270	5%	1/10W
R6303	1-216-035-00	RES,CHIP	270	5%	1/10W
R6304	1-216-035-00	RES,CHIP	270	5%	1/10W
R6308	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6309	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6316	1-216-031-00	RES,CHIP	180	5%	1/10W
R6317	1-216-031-00	RES,CHIP	180	5%	1/10W
R6320	1-216-035-00	RES,CHIP	270	5%	1/10W
R6322	1-216-097-91	RES,CHIP	100K	5%	1/10W
R6323	1-216-025-91	RES,CHIP	100	5%	1/10W
R6324	1-216-097-91	RES,CHIP	100K	5%	1/10W
R6326	1-216-025-91	RES,CHIP	100	5%	1/10W
R6327	1-216-295-91	SHORT	0		
R6328	1-216-035-00	RES,CHIP	270	5%	1/10W
R6329	1-216-035-00	RES,CHIP	270	5%	1/10W
R6330	1-216-295-91	SHORT	0		
R6331	1-216-025-91	RES,CHIP	100	5%	1/10W
R6332	1-216-035-00	RES,CHIP	270	5%	1/10W
R6335	1-216-025-91	RES,CHIP	100	5%	1/10W
R6336	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6337	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6338	1-216-295-91	SHORT	0		
R6339	1-216-295-91	SHORT	0		
R6340	1-216-025-91	RES,CHIP	100	5%	1/10W
R6342	1-216-025-91	RES,CHIP	100	5%	1/10W
R6343	1-216-031-00	RES,CHIP	180	5%	1/10W
R6344	1-216-031-00	RES,CHIP	180	5%	1/10W
R6345	1-216-035-00	RES,CHIP	270	5%	1/10W
R6346	1-216-025-91	RES,CHIP	100	5%	1/10W
R6347	1-216-025-91	RES,CHIP	100	5%	1/10W
R6348	1-216-035-00	RES,CHIP	270	5%	1/10W
R6349	1-216-035-00	RES,CHIP	270	5%	1/10W
R6350	1-216-035-00	RES,CHIP	270	5%	1/10W
R6351	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6352	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6353	1-216-031-00	RES,CHIP	180	5%	1/10W
R6354	1-216-031-00	RES,CHIP	180	5%	1/10W
R6355	1-216-035-00	RES,CHIP	270	5%	1/10W
R6356	1-216-035-00	RES,CHIP	270	5%	1/10W
R6357	1-216-035-00	RES,CHIP	270	5%	1/10W
R6358	1-216-035-00	RES,CHIP	270	5%	1/10W
R6359	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6360	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6361	1-216-031-00	RES,CHIP	180	5%	1/10W
R6362	1-216-031-00	RES,CHIP	180	5%	1/10W
R6363	1-216-035-00	RES,CHIP	270	5%	1/10W
R6364	1-216-035-00	RES,CHIP	270	5%	1/10W
R6365	1-216-035-00	RES,CHIP	270	5%	1/10W
R6366	1-216-035-00	RES,CHIP	270	5%	1/10W
R6367	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6368	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6371	1-216-031-00	RES,CHIP	180	5%	1/10W
R6372	1-216-031-00	RES,CHIP	180	5%	1/10W
R6374	1-216-035-00	RES,CHIP	270	5%	1/10W
R6384	1-216-097-91	RES,CHIP	100K	5%	1/10W
R6385	1-216-025-91	RES,CHIP	100	5%	1/10W
R6386	1-216-097-91	RES,CHIP	100K	5%	1/10W
R6387	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6389	1-216-025-91	RES,CHIP	100	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R6390	1-216-049-91	RES,CHIP	1K	5%	1/10W
R6391	1-216-295-91	SHORT	0		
R6393	1-216-025-91	RES,CHIP	100	5%	1/10W
R6394	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6395	1-216-295-91	SHORT	0		
R6396	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6397	1-216-295-91	SHORT	0		
R6398	1-216-025-91	RES,CHIP	100	5%	1/10W
R6401	1-216-025-91	RES,CHIP	100	5%	1/10W
R6402	1-216-295-91	SHORT	0		
R6403	1-216-025-91	RES,CHIP	100	5%	1/10W
R6404	1-216-025-91	RES,CHIP	100	5%	1/10W
R6405	1-216-025-91	RES,CHIP	100	5%	1/10W
R6408	1-216-035-00	RES,CHIP	270	5%	1/10W
R6410	1-216-035-00	RES,CHIP	270	5%	1/10W
R6411	1-216-035-00	RES,CHIP	270	5%	1/10W
R6412	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6413	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6414	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6415	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6416	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6417	1-216-035-00	RES,CHIP	270	5%	1/10W
R6418	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6419	1-216-035-00	RES,CHIP	270	5%	1/10W
		<SWITCH>			
S6101	1-692-679-21	SWITCH, TACTILE(SELECT)			
S6102	1-692-679-21	SWITCH, TACTILE(INPUT-C)			
S6103	1-692-679-21	SWITCH, TACTILE(APA)			
S6104	1-692-679-21	SWITCH, TACTILE(VIDEO)			
S6105	1-692-679-21	SWITCH, TACTILE(INPUT-B)			
S6106	1-692-679-21	SWITCH, TACTILE(RESET)			
S6107	1-692-679-21	SWITCH, TACTILE(VOL-)			
S6108	1-692-679-21	SWITCH, TACTILE(INPUT-A)			
S6109	1-692-679-21	SWITCH, TACTILE(LEFT)			
S6110	1-692-679-21	SWITCH, TACTILE(VOL+)			
S6111	1-692-679-21	SWITCH, TACTILE(LIGHT)			
S6112	1-692-679-21	SWITCH, TACTILE(RIGHT)			
S6113	1-692-679-21	SWITCH, TACTILE(PIC MUTE)			
S6114	1-692-679-21	SWITCH, TACTILE(FOCUS)			
S6115	1-692-679-21	SWITCH, TACTILE(DOWN)			
S6116	1-692-679-21	SWITCH, TACTILE(AUDIO MUTE)			
S6117	1-692-679-21	SWITCH, TACTILE(PIC SHIFT)			
S6118	1-692-679-21	SWITCH, TACTILE(UP)			
S6119	1-692-679-21	SWITCH, TACTILE(STAND BY)			
S6120	1-692-679-21	SWITCH, TACTILE(ZOOM)			
S6121	1-692-679-21	SWITCH, TACTILE(ENTER)			
S6122	1-692-679-21	SWITCH, TACTILE(ON)			
S6123	1-692-679-21	SWITCH, TACTILE(PATTERN)			
S6124	1-692-679-21	SWITCH, TACTILE(MENU)			

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* A-1306-561-A	M COMPL	
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* X-4036-255-1	PANEL (M) ASSY, REAR	
* 1-526-659-00	SOCKET, IC (DP) 28P	
* 1-526-662-21	SOCKET, IC (DP) 40P	
* 1-540-212-11	SOCKET (ROTARY SWITCH)	

REF NO.	PART NO.	DESCRIPTION			REMARK
	4-055-636-01	SCREW (S2), M3			
	7-682-148-01	SCREW +P 3X8			
	7-682-247-09	SCREW +K 3X6			
	7-682-548-09	SCREW +B 3X8			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3			
	8-752-887-16	IC CXP846P48Q-1-004			
		<CAPACITOR>			
C2001	1-128-401-11	ELECT CHIP	100MF	20%	25V
C2002	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2003	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2004	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2005	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2006	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2007	1-128-401-11	ELECT CHIP	100MF	20%	25V
C2008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2009	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2010	1-128-401-11	ELECT CHIP	100MF	20%	25V
C2011	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2013	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2016	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2017	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2018	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2019	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2020	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2023	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2024	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2026	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2027	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2028	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2201	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C2202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2203	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2204	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2206	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2207	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2208	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C2209	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C2210	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2212	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2214	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2215	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2216	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2217	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2218	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2219	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2301	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2302	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

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REF NO.	PART NO.	DESCRIPTION				REMARK
C2305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2306	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2307	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2310	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2311	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2316	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2317	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2318	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2321	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2322	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2323	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2324	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C2325	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2326	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2401	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2402	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2403	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2404	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2405	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2406	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2408	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2409	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2410	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2411	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2412	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2413	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2414	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2501	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C2503	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C2505	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2507	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2508	1-126-193-11	ELECT CHIP	1MF	20%	50V	
C2509	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2514	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C2515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2517	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2518	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2519	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2520	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2521	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2522	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2523	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2524	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2525	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2526	1-124-779-00	ELECT CHIP	10MF	20%	16V	
C2527	1-128-401-11	ELECT CHIP	100MF	20%	25V	
C2528	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2529	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2530	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2531	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2532	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2601	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2605	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2606	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2609	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2611	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2612	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2613	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2614	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2615	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2616	1-104-607-11	ELECT CHIP	47MF	20%	16V	
C2617	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2618	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2619	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2703	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2704	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2705	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2706	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2707	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2708	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2709	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2710	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2711	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2712	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2713	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2714	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2901	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2902	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2903	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2904	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	
C2905	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2906	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2907	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2908	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2910	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2911	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2913	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2914	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2915	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2916	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2917	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2918	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2919	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2920	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C2921	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2922	1-126-193-11	ELECT CHIP	1MF	20%	50V	
C2924	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2926	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2927	1-126-193-11	ELECT CHIP	1MF	20%	50V	
C2929	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2930	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2932	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2933	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2934	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2935	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2936	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
		<CONNECTOR>				
CN2001	* 1-785-559-11	CONNECTOR, BOARD TO BOARD 140P				
CN2501	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P				
CN2601	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P				

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REF NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D2001	8-719-914-43	DIODE DAN202K	
D2002	8-719-914-43	DIODE DAN202K	
D2003	8-719-914-43	DIODE DAN202K	
D2004	8-719-914-43	DIODE DAN202K	
D2005	8-719-914-43	DIODE DAN202K	
D2006	8-719-914-43	DIODE DAN202K	
D2007	8-719-914-43	DIODE DAN202K	
D2008	8-719-914-43	DIODE DAN202K	
D2701	8-719-158-17	DIODE RD5.6SB2	
D2702	8-719-158-17	DIODE RD5.6SB2	
D2703	8-719-158-17	DIODE RD5.6SB2	
D2704	8-719-158-17	DIODE RD5.6SB2	
D2705	8-719-158-17	DIODE RD5.6SB2	
D2706	8-719-158-17	DIODE RD5.6SB2	
D2707	8-719-158-17	DIODE RD5.6SB2	
D2708	8-719-158-17	DIODE RD5.6SB2	
D2902	8-719-914-43	DIODE DAN202K	
D2903	8-719-914-43	DIODE DAN202K	
D2904	8-719-914-43	DIODE DAN202K	
D2905	8-719-158-17	DIODE RD5.6SB2	
D2906	8-719-914-43	DIODE DAN202K	
D2907	8-719-800-76	DIODE 1SS226	
D2908	8-719-800-76	DIODE 1SS226	
D2909	8-719-800-76	DIODE 1SS226	
D2911	8-719-158-53	DIODE RD13SB2	
D2912	8-719-914-43	DIODE DAN202K	
D2913	8-719-914-43	DIODE DAN202K	
D2914	8-719-800-76	DIODE 1SS226	
D2915	8-719-800-76	DIODE 1SS226	
D2916	8-719-800-76	DIODE 1SS226	
D2917	8-719-800-76	DIODE 1SS226	
		<FILTER>	
FL2001	1-239-466-21	FILTER, EMI	
FL2002	1-239-466-21	FILTER, EMI	
		<IC>	
IC2001	8-759-186-77	IC TC74VHC541F	
IC2002	8-759-186-77	IC TC74VHC541F	
IC2003	8-759-186-77	IC TC74VHC541F	
IC2004	8-759-186-77	IC TC74VHC541F	
IC2005	8-759-491-41	IC TC74VHCT541AF(EL)	
IC2006	8-759-186-26	IC TC74VHC02F	
IC2007	8-759-186-77	IC TC74VHC541F	
IC2008	8-759-186-63	IC TC74VHC245F	
IC2010	8-759-439-28	IC TC7SH32F-TE85L	
IC2011	8-759-271-86	IC TC7SH04FU	
IC2012	8-759-186-43	IC TC74VHC123AF	
IC2201	8-759-162-80	IC MM1170BFB	
IC2203	8-759-543-74	IC CY7C1021-20ZC	
IC2206	8-759-530-40	IC M48Z35Y-70PC1	
IC2207	8-759-384-54	IC MBM29F400BA-70PFTN	
IC2209	* 8-759-545-62	IC M27C4002-10F1-SX1647	
IC2211	8-759-081-48	IC TC74VHC08F	
IC2212	8-759-082-55	IC TC7W00FU	
IC2213	8-759-271-86	IC TC7SH04FU	
IC2214	8-759-242-68	IC TC7W32F	

REF NO.	PART NO.	DESCRIPTION	REMARK
IC2301	8-759-571-01	IC MBCG46104-120PFV	
IC2303	8-759-162-80	IC MM1170BFB	
IC2304	8-759-242-74	IC TC7W04F	
IC2401	8-759-174-16	IC TC74VHC244F	
IC2402	8-759-174-16	IC TC74VHC244F	
IC2403	8-759-174-16	IC TC74VHC244F	
IC2404	8-759-174-16	IC TC74VHC244F	
IC2405	8-759-174-16	IC TC74VHC244F	
IC2406	8-759-271-86	IC TC7SH04FU	
IC2407	8-759-271-86	IC TC7SH04FU	
IC2408	8-759-186-38	IC TC74VHC32F	
IC2409	8-759-186-63	IC TC74VHC245F	
IC2410	8-759-174-16	IC TC74VHC244F	
IC2411	8-759-174-16	IC TC74VHC244F	
IC2412	8-759-174-16	IC TC74VHC244F	
IC2413	8-759-384-54	IC MBM29F400BA-70PFTN	
IC2501	8-759-186-43	IC TC74VHC123AF	
IC2503	8-759-186-77	IC TC74VHC541F	
IC2504	8-759-186-77	IC TC74VHC541F	
IC2505	8-759-437-35	IC MB90091APF-116	
IC2506	8-759-186-77	IC TC74VHC541F	
IC2507	8-759-271-86	IC TC7SH04FU	
IC2508	8-759-186-63	IC TC74VHC245F	
IC2509	8-759-439-28	IC TC7SH32F-TE85L	
IC2510	8-759-460-74	IC BA05FP-E2	
IC2511	8-759-571-45	IC ISPLSI2032-80LT48-M01V1	
IC2601	8-759-430-23	IC µPD65806GD-064-LML	
IC2603	8-759-491-32	IC TC74VHCT04AF(EL)	
IC2604	8-759-180-84	IC TC7W74F	
IC2605	8-759-394-05	IC TC7SH08F-TE85R	
IC2607	8-759-575-94	IC TC551664BJ-15(EL)	
IC2608	8-759-575-94	IC TC551664BJ-15(EL)	
IC2611	8-759-571-44	IC ISPLSI1016E-80LT44-M02V1	
IC2703	8-752-900-26	IC CXP846P48Q-1-012	
IC2901	8-759-242-74	IC TC7W04F	
IC2902	8-759-479-15	IC PC16552DV	
IC2903	8-759-701-01	IC NJM2904M	
IC2904	8-759-271-86	IC TC7SH04FU	
IC2905	8-759-981-61	IC LM2901M	
IC2906	8-759-566-67	IC MAX3085CSA-TG068	
IC2907	8-759-566-67	IC MAX3085CSA-TG068	
IC2909	8-759-396-84	IC MAX211ECAI-TE2	
IC2910	8-759-397-00	IC MAX489ECSD-TE2	
IC2911	8-759-180-84	IC TC7W74F	
		<JACK>	
J2901	1-507-562-00	JACK	
		<TRANSISTOR>	
Q2001	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2002	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2003	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2004	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2005	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2006	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2007	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2008	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2009	8-729-202-38	TRANSISTOR 2SC3326N-A	
Q2010	8-729-202-38	TRANSISTOR 2SC3326N-A	

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REF NO.	PART NO.	DESCRIPTION			REMARK
Q2011	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2012	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2013	8-729-216-22	TRANSISTOR 2SA1162-G			
Q2014	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2201	8-729-216-22	TRANSISTOR 2SA1162-G			
Q2202	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2501	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2901	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2902	8-729-216-22	TRANSISTOR 2SA1162-G			
Q2903	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2904	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2905	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2906	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2907	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2908	8-729-014-93	TRANSISTOR 2SB1440S-TX			
Q2909	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2910	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2911	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2912	8-729-900-53	TRANSISTOR DTC114EK			
Q2913	8-729-900-53	TRANSISTOR DTC114EK			
Q2914	8-729-900-53	TRANSISTOR DTC114EK			
Q2915	8-729-900-53	TRANSISTOR DTC114EK			
		<RESISTOR>			
R2001	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2002	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2003	1-216-025-91	RES,CHIP	100	5%	1/10W
R2004	1-216-025-91	RES,CHIP	100	5%	1/10W
R2005	1-216-025-91	RES,CHIP	100	5%	1/10W
R2006	1-216-025-91	RES,CHIP	100	5%	1/10W
R2007	1-216-025-91	RES,CHIP	100	5%	1/10W
R2008	1-216-025-91	RES,CHIP	100	5%	1/10W
R2010	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2011	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2013	1-216-025-91	RES,CHIP	100	5%	1/10W
R2014	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2015	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2016	1-216-025-91	RES,CHIP	100	5%	1/10W
R2017	1-216-025-91	RES,CHIP	100	5%	1/10W
R2018	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2019	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2020	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2021	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2026	1-216-025-91	RES,CHIP	100	5%	1/10W
R2028	1-216-025-91	RES,CHIP	100	5%	1/10W
R2029	1-216-025-91	RES,CHIP	100	5%	1/10W
R2030	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2031	1-216-025-91	RES,CHIP	100	5%	1/10W
R2032	1-216-025-91	RES,CHIP	100	5%	1/10W
R2033	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2034	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2035	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2036	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2037	1-216-025-91	RES,CHIP	100	5%	1/10W
R2038	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2039	1-216-025-91	RES,CHIP	100	5%	1/10W
R2040	1-216-025-91	RES,CHIP	100	5%	1/10W
R2041	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2042	1-216-025-91	RES,CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R2043	1-216-025-91	RES,CHIP	100	5%	1/10W
R2044	1-216-025-91	RES,CHIP	100	5%	1/10W
R2045	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2046	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2047	1-216-025-91	RES,CHIP	100	5%	1/10W
R2049	1-216-025-91	RES,CHIP	100	5%	1/10W
R2050	1-216-025-91	RES,CHIP	100	5%	1/10W
R2051	1-216-025-91	RES,CHIP	100	5%	1/10W
R2052	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2053	1-216-025-91	RES,CHIP	100	5%	1/10W
R2054	1-216-025-91	RES,CHIP	100	5%	1/10W
R2055	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2056	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2057	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2058	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2059	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2060	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2061	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2062	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2063	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2065	1-216-025-91	RES,CHIP	100	5%	1/10W
R2066	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2067	1-216-025-91	RES,CHIP	100	5%	1/10W
R2068	1-216-025-91	RES,CHIP	100	5%	1/10W
R2069	1-216-025-91	RES,CHIP	100	5%	1/10W
R2070	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2071	1-216-025-91	RES,CHIP	100	5%	1/10W
R2072	1-216-025-91	RES,CHIP	100	5%	1/10W
R2073	1-216-025-91	RES,CHIP	100	5%	1/10W
R2074	1-216-025-91	RES,CHIP	100	5%	1/10W
R2075	1-216-025-91	RES,CHIP	100	5%	1/10W
R2076	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2077	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2078	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2079	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2080	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2081	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2082	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2083	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2084	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2085	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2086	1-216-025-91	RES,CHIP	100	5%	1/10W
R2087	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2088	1-216-025-91	RES,CHIP	100	5%	1/10W
R2089	1-216-025-91	RES,CHIP	100	5%	1/10W
R2090	1-216-295-91	SHORT	0		
R2091	1-216-025-91	RES,CHIP	100	5%	1/10W
R2092	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2093	1-216-025-91	RES,CHIP	100	5%	1/10W
R2094	1-216-025-91	RES,CHIP	100	5%	1/10W
R2095	1-216-025-91	RES,CHIP	100	5%	1/10W
R2096	1-216-025-91	RES,CHIP	100	5%	1/10W
R2097	1-216-025-91	RES,CHIP	100	5%	1/10W
R2098	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2099	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2100	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2101	1-216-073-00	RES,CHIP	10K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R2102	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2103	1-216-025-91	RES,CHIP	100	5%	1/10W
R2104	1-216-025-91	RES,CHIP	100	5%	1/10W
R2105	1-216-009-00	RES,CHIP	22	5%	1/10W
R2106	1-216-025-91	RES,CHIP	100	5%	1/10W
R2107	1-216-025-91	RES,CHIP	100	5%	1/10W
R2108	1-216-025-91	RES,CHIP	100	5%	1/10W
R2109	1-216-025-91	RES,CHIP	100	5%	1/10W
R2110	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2111	1-216-025-91	RES,CHIP	100	5%	1/10W
R2112	1-216-025-91	RES,CHIP	100	5%	1/10W
R2113	1-216-025-91	RES,CHIP	100	5%	1/10W
R2114	1-216-025-91	RES,CHIP	100	5%	1/10W
R2115	1-216-025-91	RES,CHIP	100	5%	1/10W
R2116	1-216-025-91	RES,CHIP	100	5%	1/10W
R2117	1-216-025-91	RES,CHIP	100	5%	1/10W
R2118	1-216-025-91	RES,CHIP	100	5%	1/10W
R2119	1-216-025-91	RES,CHIP	100	5%	1/10W
R2120	1-216-025-91	RES,CHIP	100	5%	1/10W
R2121	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2122	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2123	1-216-025-91	RES,CHIP	100	5%	1/10W
R2124	1-216-025-91	RES,CHIP	100	5%	1/10W
R2125	1-216-025-91	RES,CHIP	100	5%	1/10W
R2126	1-216-025-91	RES,CHIP	100	5%	1/10W
R2127	1-216-025-91	RES,CHIP	100	5%	1/10W
R2128	1-216-025-91	RES,CHIP	100	5%	1/10W
R2129	1-216-025-91	RES,CHIP	100	5%	1/10W
R2130	1-216-025-91	RES,CHIP	100	5%	1/10W
R2131	1-216-025-91	RES,CHIP	100	5%	1/10W
R2132	1-216-025-91	RES,CHIP	100	5%	1/10W
R2133	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2134	1-216-025-91	RES,CHIP	100	5%	1/10W
R2135	1-216-025-91	RES,CHIP	100	5%	1/10W
R2136	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2137	1-216-025-91	RES,CHIP	100	5%	1/10W
R2138	1-216-025-91	RES,CHIP	100	5%	1/10W
R2142	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2143	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2144	1-216-025-91	RES,CHIP	100	5%	1/10W
R2145	1-216-025-91	RES,CHIP	100	5%	1/10W
R2146	1-216-025-91	RES,CHIP	100	5%	1/10W
R2147	1-216-073-00	RES.CHIP	10K	5%	1/10W
R2148	1-216-025-91	RES,CHIP	100	5%	1/10W
R2149	1-216-025-91	RES,CHIP	100	5%	1/10W
R2150	1-216-025-91	RES,CHIP	100	5%	1/10W
R2151	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2152	1-216-025-91	RES,CHIP	100	5%	1/10W
R2153	1-216-025-91	RES,CHIP	100	5%	1/10W
R2154	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2155	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2156	1-216-047-91	RES,CHIP	820	5%	1/10W
R2157	1-216-073-00	RES.CHIP	10K	5%	1/10W
R2158	1-216-025-91	RES,CHIP	100	5%	1/10W
R2159	1-216-047-91	RES,CHIP	820	5%	1/10W
R2160	1-216-025-91	RES,CHIP	100	5%	1/10W
R2161	1-216-047-91	RES.CHIP	820	5%	1/10W
R2162	1-216-025-91	RES,CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R2163	1-216-047-91	RES,CHIP	820	5%	1/10W
R2164	1-216-025-91	RES,CHIP	100	5%	1/10W
R2165	1-216-047-91	RES,CHIP	820	5%	1/10W
R2166	1-216-025-91	RES,CHIP	100	5%	1/10W
R2167	1-216-025-91	RES,CHIP	100	5%	1/10W
R2168	1-216-025-91	RES,CHIP	100	5%	1/10W
R2169	1-216-025-91	RES,CHIP	100	5%	1/10W
R2170	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2171	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2172	1-216-025-91	RES,CHIP	100	5%	1/10W
R2173	1-216-025-91	RES,CHIP	100	5%	1/10W
R2174	1-216-025-91	RES,CHIP	100	5%	1/10W
R2175	1-216-025-91	RES,CHIP	100	5%	1/10W
R2176	1-216-025-91	RES,CHIP	100	5%	1/10W
R2177	1-216-025-91	RES,CHIP	100	5%	1/10W
R2178	1-216-025-91	RES,CHIP	100	5%	1/10W
R2179	1-216-025-91	RES,CHIP	100	5%	1/10W
R2180	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2181	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2182	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2183	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2184	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2185	1-216-025-91	RES,CHIP	100	5%	1/10W
R2186	1-216-025-91	RES,CHIP	100	5%	1/10W
R2187	1-216-025-91	RES,CHIP	100	5%	1/10W
R2188	1-216-025-91	RES,CHIP	100	5%	1/10W
R2189	1-216-295-91	SHORT	0		
R2190	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2192	1-216-025-91	RES,CHIP	100	5%	1/10W
R2193	1-216-025-91	RES,CHIP	100	5%	1/10W
R2194	1-216-025-91	RES,CHIP	100	5%	1/10W
R2195	1-216-025-91	RES,CHIP	100	5%	1/10W
R2196	1-216-025-91	RES,CHIP	100	5%	1/10W
R2197	1-216-025-91	RES,CHIP	100	5%	1/10W
R2198	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2199	1-216-025-91	RES,CHIP	100	5%	1/10W
R2200	1-216-295-91	SHORT	0		
R2201	1-216-295-91	SHORT	0		
R2202	1-216-295-91	SHORT	0		
R2203	1-216-295-91	SHORT	0		
R2206	1-216-295-91	SHORT	0		
R2207	1-216-295-91	SHORT	0		
R2208	1-216-295-91	SHORT	0		
R2209	1-216-295-91	SHORT	0		
R2210	1-216-295-91	SHORT	0		
R2211	1-216-295-91	SHORT	0		
R2212	1-216-295-91	SHORT	0		
R2213	1-216-295-91	SHORT	0		
R2214	1-216-295-91	SHORT	0		
R2215	1-216-295-91	SHORT	0		
R2216	1-216-295-91	SHORT	0		
R2217	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2218	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2219	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2220	1-216-033-00	RES,CHIP	220	5%	1/10W
R2221	1-216-025-91	RES,CHIP	100	5%	1/10W
R2222	1-216-025-91	RES,CHIP	100	5%	1/10W
R2223	1-216-025-91	RES,CHIP	100	5%	1/10W
R2224	1-216-025-91	RES,CHIP	100	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R2225	1-216-025-91	RES,CHIP	100	5%	1/10W
R2229	1-216-025-91	RES,CHIP	100	5%	1/10W
R2230	1-216-025-91	RES,CHIP	100	5%	1/10W
R2231	1-216-025-91	RES,CHIP	100	5%	1/10W
R2232	1-216-025-91	RES,CHIP	100	5%	1/10W
R2233	1-216-025-91	RES,CHIP	100	5%	1/10W
R2234	1-216-025-91	RES,CHIP	100	5%	1/10W
R2235	1-216-025-91	RES,CHIP	100	5%	1/10W
R2236	1-216-025-91	RES,CHIP	100	5%	1/10W
R2238	1-216-025-91	RES,CHIP	100	5%	1/10W
R2239	1-216-025-91	RES,CHIP	100	5%	1/10W
R2240	1-216-025-91	RES,CHIP	100	5%	1/10W
R2241	1-216-025-91	RES,CHIP	100	5%	1/10W
R2242	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2243	1-216-025-91	RES,CHIP	100	5%	1/10W
R2244	1-216-025-91	RES,CHIP	100	5%	1/10W
R2246	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R2247	1-216-025-91	RES,CHIP	100	5%	1/10W
R2248	1-216-033-00	RES,CHIP	220	5%	1/10W
R2250	1-216-113-00	RES,CHIP	470K	5%	1/10W
R2252	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2253	1-216-113-00	RES,CHIP	470K	5%	1/10W
R2254	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2255	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2256	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2257	1-216-025-91	RES,CHIP	100	5%	1/10W
R2258	1-216-025-91	RES,CHIP	100	5%	1/10W
R2259	1-216-025-91	RES,CHIP	100	5%	1/10W
R2260	1-216-025-91	RES,CHIP	100	5%	1/10W
R2261	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2262	1-216-025-91	RES,CHIP	100	5%	1/10W
R2263	1-216-025-91	RES,CHIP	100	5%	1/10W
R2264	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2265	1-216-025-91	RES,CHIP	100	5%	1/10W
R2266	1-216-025-91	RES,CHIP	100	5%	1/10W
R2267	1-216-025-91	RES,CHIP	100	5%	1/10W
R2268	1-216-025-91	RES,CHIP	100	5%	1/10W
R2269	1-216-025-91	RES,CHIP	100	5%	1/10W
R2270	1-216-025-91	RES,CHIP	100	5%	1/10W
R2271	1-216-025-91	RES,CHIP	100	5%	1/10W
R2272	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2273	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2274	1-216-295-91	SHORT	0		
R2275	1-216-025-91	RES,CHIP	100	5%	1/10W
R2276	1-216-113-00	RES,CHIP	470K	5%	1/10W
R2278	1-216-025-91	RES,CHIP	100	5%	1/10W
R2279	1-216-025-91	RES,CHIP	100	5%	1/10W
R2280	1-216-025-91	RES,CHIP	100	5%	1/10W
R2281	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2282	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2285	1-216-295-91	SHORT	0		
R2286	1-216-295-91	SHORT	0		
R2287	1-216-295-91	SHORT	0		
R2288	1-216-295-91	SHORT	0		
R2289	1-216-025-91	RES,CHIP	100	5%	1/10W
R2290	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2291	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2292	1-216-025-91	RES,CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R2293	1-216-295-91	SHORT	0		
R2294	1-216-025-91	RES,CHIP	100	5%	1/10W
R2295	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2296	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2297	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2301	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2302	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2303	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2304	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2305	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2306	1-216-025-91	RES,CHIP	100	5%	1/10W
R2307	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2308	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2309	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2310	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2311	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2313	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2314	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2315	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2316	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2317	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2318	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2319	1-216-025-91	RES,CHIP	100	5%	1/10W
R2320	1-216-025-91	RES,CHIP	100	5%	1/10W
R2321	1-216-025-91	RES,CHIP	100	5%	1/10W
R2322	1-216-025-91	RES,CHIP	100	5%	1/10W
R2323	1-216-025-91	RES,CHIP	100	5%	1/10W
R2324	1-216-025-91	RES,CHIP	100	5%	1/10W
R2325	1-216-025-91	RES,CHIP	100	5%	1/10W
R2326	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2327	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2331	1-216-121-91	RES,CHIP	1M	5%	1/10W
R2332	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2333	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2334	1-216-295-91	SHORT	0		
R2335	1-216-025-91	RES,CHIP	100	5%	1/10W
R2336	1-216-025-91	RES,CHIP	100	5%	1/10W
R2337	1-216-025-91	RES,CHIP	100	5%	1/10W
R2338	1-216-025-91	RES,CHIP	100	5%	1/10W
R2343	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2344	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2345	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2346	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2347	1-216-025-91	RES,CHIP	100	5%	1/10W
R2348	1-216-025-91	RES,CHIP	100	5%	1/10W
R2351	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2352	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2353	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2354	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2355	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2356	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2357	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2358	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2359	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2360	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2361	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2362	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2363	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2364	1-216-073-00	RES,CHIP	10K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R2365	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2366	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2367	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2368	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2369	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2370	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2371	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2372	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2373	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2374	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2375	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2376	1-216-295-91	SHORT	0		
R2377	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2378	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2379	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2380	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2381	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2382	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2383	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2384	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2385	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2386	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2387	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2388	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2389	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2403	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2404	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2407	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2408	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2409	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2410	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2411	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2412	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2421	1-216-295-91	SHORT	0		
R2501	1-216-025-91	RES,CHIP	100	5%	1/10W
R2502	1-216-025-91	RES,CHIP	100	5%	1/10W
R2503	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2504	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2505	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2506	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2510	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2511	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2515	1-216-025-91	RES,CHIP	100	5%	1/10W
R2517	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2519	1-216-025-91	RES,CHIP	100	5%	1/10W
R2520	1-216-025-91	RES,CHIP	100	5%	1/10W
R2521	1-216-025-91	RES,CHIP	100	5%	1/10W
R2522	1-216-025-91	RES,CHIP	100	5%	1/10W
R2523	1-216-025-91	RES,CHIP	100	5%	1/10W
R2524	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2525	1-216-025-91	RES,CHIP	100	5%	1/10W
R2526	1-216-295-91	SHORT	0		
R2528	1-216-025-91	RES.CHIP	100	5%	1/10W
R2529	1-216-295-91	SHORT	0		
R2530	1-216-029-00	RES.CHIP	150	5%	1/10W
R2532	1-216-073-00	RES.CHIP	10K	5%	1/10W
R2534	1-216-025-91	RES.CHIP	100	5%	1/10W
R2535	1-216-025-91	RES.CHIP	100	5%	1/10W
R2536	1-216-025-91	RES,CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R2537	1-216-025-91	RES,CHIP	100	5%	1/10W
R2539	1-216-025-91	RES,CHIP	100	5%	1/10W
R2540	1-216-025-91	RES,CHIP	100	5%	1/10W
R2541	1-216-025-91	RES,CHIP	100	5%	1/10W
R2542	1-216-025-91	RES,CHIP	100	5%	1/10W
R2543	1-216-025-91	RES,CHIP	100	5%	1/10W
R2544	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2545	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2546	1-216-025-91	RES,CHIP	100	5%	1/10W
R2547	1-216-025-91	RES,CHIP	100	5%	1/10W
R2548	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2549	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2550	1-216-295-91	SHORT	0		
R2551	1-216-295-91	SHORT	0		
R2552	1-216-025-91	RES,CHIP	100	5%	1/10W
R2557	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2558	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2559	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2560	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2561	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2562	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2563	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2564	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2565	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2566	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2567	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2568	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2569	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2570	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2571	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2572	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2573	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2574	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2575	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2576	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2577	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2578	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2579	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2580	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2581	1-216-295-91	SHORT	0		
R2582	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2601	1-216-295-91	SHORT	0		
R2604	1-216-295-91	SHORT	0		
R2605	1-216-295-91	SHORT	0		
R2606	1-216-295-91	SHORT	0		
R2607	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2608	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2609	1-216-295-91	SHORT	0		
R2610	1-216-295-91	SHORT	0		
R2611	1-216-295-91	SHORT	0		
R2612	1-216-295-91	SHORT	0		
R2613	1-216-295-91	SHORT	0		
R2614	1-216-295-91	SHORT	0		
R2615	1-216-295-91	SHORT	0		
R2616	1-216-295-91	SHORT	0		
R2617	1-216-295-91	SHORT	0		
R2618	1-216-295-91	SHORT	0		
R2619	1-216-295-91	SHORT	0		
R2620	1-216-295-91	SHORT	0		

REF NO.	PART NO.	DESCRIPTION				REMARK
R2621	1-216-295-91	SHORT	0			
R2622	1-216-295-91	SHORT	0			
R2623	1-216-295-91	SHORT	0			
R2624	1-216-295-91	SHORT	0			
R2625	1-216-295-91	SHORT	0			
R2626	1-216-295-91	SHORT	0			
R2627	1-216-295-91	SHORT	0			
R2628	1-216-295-91	SHORT	0			
R2629	1-216-295-91	SHORT	0			
R2630	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2632	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2633	1-216-295-91	SHORT	0			
R2634	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2635	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2636	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2637	1-216-295-91	SHORT	0			
R2640	1-216-295-91	SHORT	0			
R2641	1-216-295-91	SHORT	0			
R2643	1-216-295-91	SHORT	0			
R2646	1-216-295-91	SHORT	0			
R2653	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2654	1-216-295-91	SHORT	0			
R2660	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2661	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2662	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2663	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2664	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2665	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2666	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2667	1-216-295-91	SHORT	0			
R2668	1-216-295-91	SHORT	0			
R2669	1-216-295-91	SHORT	0			
R2670	1-216-295-91	SHORT	0			
R2671	1-216-295-91	SHORT	0			
R2672	1-216-295-91	SHORT	0			
R2673	1-216-295-91	SHORT	0			
R2674	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2702	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2703	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2709	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2710	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2711	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2712	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2713	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2714	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2715	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2716	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2718	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2719	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2720	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2721	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2722	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2723	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2724	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2725	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2726	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2727	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2728	1-216-025-91	RES,CHIP	100	5%	1/10W	

REF NO.	PART NO.	DESCRIPTION				REMARK
R2729	1-216-295-91	SHORT	0			
R2730	1-216-295-91	SHORT	0			
R2731	1-216-295-91	SHORT	0			
R2830	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2833	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2834	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2901	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2902	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2903	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2904	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2905	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2906	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2907	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2908	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R2909	1-249-377-11	CARBON	0.47	5%	1/4W	F
R2910	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2911	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2912	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2913	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2914	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2915	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2916	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2917	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2918	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2919	1-216-295-91	SHORT	0			
R2920	1-216-109-00	RES,CHIP	330K	5%	1/10W	
R2921	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2922	1-216-109-00	RES,CHIP	330K	5%	1/10W	
R2923	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2924	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2925	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2926	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2927	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2929	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2930	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2931	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2932	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2933	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2934	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2936	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2937	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R2938	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2939	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	
R2940	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2941	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2942	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2944	1-216-295-91	SHORT	0			
R2945	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2947	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2948	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2949	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2950	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2951	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2952	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2953	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2954	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R2955	1-216-025-91	RES,CHIP	100	5%	1/10W	

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REF NO.	PART NO.	DESCRIPTION			REMARK
R2956	1-216-037-00	RES,CHIP	330	5%	1/10W
R2957	1-216-295-91	SHORT	0		
R2958	1-216-295-91	SHORT	0		
R2959	1-216-295-91	SHORT	0		
R2960	1-216-295-91	SHORT	0		
R2961	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2962	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2963	1-216-025-91	RES,CHIP	100	5%	1/10W
R2964	1-216-025-91	RES,CHIP	100	5%	1/10W
R2965	1-216-083-00	RES,CHIP	27K	5%	1/10W
R2966	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2967	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2968	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2969	1-216-083-00	RES,CHIP	27K	5%	1/10W
R2970	1-216-025-91	RES,CHIP	100	5%	1/10W
R2971	1-216-025-91	RES,CHIP	100	5%	1/10W
R2972	1-216-025-91	RES,CHIP	100	5%	1/10W
R2973	1-216-025-91	RES,CHIP	100	5%	1/10W
R2974	1-216-025-91	RES,CHIP	100	5%	1/10W
R2975	1-216-025-91	RES,CHIP	100	5%	1/10W
R2976	1-216-025-91	RES,CHIP	100	5%	1/10W
R2977	1-216-025-91	RES,CHIP	100	5%	1/10W
R2978	1-216-025-91	RES,CHIP	100	5%	1/10W
R2979	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2980	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2981	1-216-109-00	RES,CHIP	330K	5%	1/10W
R2982	1-216-025-91	RES,CHIP	100	5%	1/10W
R2983	1-216-025-91	RES,CHIP	100	5%	1/10W
R2984	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R2985	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2986	1-216-295-91	SHORT	0		
R2987	1-216-295-91	SHORT	0		
R2988	1-216-295-91	SHORT	0		
R2989	1-216-295-91	SHORT	0		
R2990	1-216-295-91	SHORT	0		
R2991	1-216-295-91	SHORT	0		
R2992	1-216-295-91	SHORT	0		
R2993	1-216-295-91	SHORT	0		
R2994	1-216-295-91	SHORT	0		
R2995	1-216-295-91	SHORT	0		
R2996	1-216-295-91	SHORT	0		
		<VARIABLE RESISTOR>			
RV2901	1-238-091-11	RES, ADJ CERMET 22K			
		<RELAY>			
RY2901	1-755-145-11	RELAY			
RY2902	1-755-145-11	RELAY			
RY2903	1-755-145-11	RELAY			
		<SWITCH>			
S2702	1-572-853-11	SWITCH, ROTARY(10)			
S2703	1-572-853-11	SWITCH, ROTARY(1)			
S2901	1-571-658-11	SWITCH, SLIDE(RS-232C/422)			
		<TERMINAL BOARD>			
TB2901	1-694-485-11	TERMINAL BOARD ASSY, I/O			
TB2902	1-694-486-11	TERMINAL BOARD ASSY, I/O			

REF NO.	PART NO.	DESCRIPTION			REMARK
		<CRYSTAL>			
X2201	1-781-201-21	VIBRATOR, CRYSTAL(7.15909MHZ)			
X2301	1-781-204-21	VIBRATOR, CRYSTAL(20MHZ)			
X2701	1-781-202-21	VIBRATOR, CRYSTAL(16MHZ)			
X2901	1-781-203-21	VIBRATOR, CRYSTAL(18.432MHZ)			
**********					
	* A-1390-881-A	N MOUNT *******			
		<CAPACITOR>			
C801	1-124-779-00	ELECT CHIP	10MF	20%	16V
C802	1-165-319-11	CERAMIC CHIP	0.1MF	50V	
		<CONNECTOR>			
CN801	* 1-564-518-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D801	8-719-158-17	DIODE RD5.6SB2			
		<IC>			
IC801	8-742-088-10	HYB IC SBX1780-51(10)			
		<RESISTOR>			
R801	1-216-025-91	RES,CHIP	100	5%	1/10W
R802	1-216-017-91	RES,CHIP	47	5%	1/10W
**********					
	* A-1275-160-A	QA COMPL ********			
	* X-4036-247-1	PANEL (QA) ASSY, REAR			
	1-562-579-21	RECEPTACLE, CONNECTOR 2P			
	4-396-203-01	SCREW (+B M3X12), PREVENTION			
	7-685-647-79	SCREW +BVTP	3X10 TYPE2 IT-3		
		<CAPACITOR>			
C8001	1-128-594-11	ELECT CHIP	1MF	20%	50V
C8002	1-128-594-11	ELECT CHIP	1MF	20%	50V
C8003	1-128-453-21	ELECT CHIP	47MF	20%	6.3V
C8004	1-128-453-21	ELECT CHIP	47MF	20%	6.3V
C8005	1-128-453-21	ELECT CHIP	47MF	20%	6.3V
C8006	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8007	1-128-004-11	ELECT CHIP	10MF	20%	16V
C8008	1-128-004-11	ELECT CHIP	10MF	20%	16V
C8009	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8010	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8011	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8012	1-128-004-11	ELECT CHIP	10MF	20%	16V
C8013	1-126-204-11	ELECT CHIP	47MF	20%	16V
C8014	1-128-013-11	ELECT CHIP	1MF	20%	50V
C8015	1-128-004-11	ELECT CHIP	10MF	20%	16V
C8016	1-126-204-11	ELECT CHIP	47MF	20%	16V
C8017	1-128-013-11	ELECT CHIP	1MF	20%	50V
C8018	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8019	1-128-004-11	ELECT CHIP	10MF	20%	16V
C8020	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

REF NO.	PART NO.	DESCRIPTION				REMARK
C8022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8024	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C8025	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8026	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8027	1-164-346-11	CERAMIC CHIP	1MF	16V		
C8028	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C8029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8030	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8031	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8032	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8035	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8038	1-128-594-11	ELECT CHIP	1MF	20%	50V	
C8039	1-128-594-11	ELECT CHIP	1MF	20%	50V	
C8040	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8041	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8201	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8203	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8204	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8207	1-128-453-21	ELECT CHIP	47MF	20%	6.3V	
C8208	1-128-453-21	ELECT CHIP	47MF	20%	6.3V	
C8209	1-128-453-21	ELECT CHIP	47MF	20%	6.3V	
C8210	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C8211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8212	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8213	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C8214	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8215	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C8216	1-126-204-11	ELECT CHIP	47MF	20%	16V	
C8217	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8218	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8219	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8220	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8221	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8223	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8225	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8226	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8227	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8228	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8229	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8230	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8231	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8232	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8233	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8234	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8235	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8236	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8237	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8238	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8239	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8240	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8241	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8242	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8243	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8244	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8245	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8246	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8247	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8248	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8249	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8250	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8251	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8252	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8253	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8254	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8255	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8256	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8257	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8258	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8401	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8402	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8403	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8404	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8405	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8406	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8408	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8409	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8410	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8411	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V	
C8412	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8413	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8414	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C8415	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8416	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8417	1-128-004-11	ELECT CHIP	10MF	20%	16V	
C8418	1-128-004-11	ELECT CHIP	10MF	20%	16V	
		<CONNECTOR>				
CN8001	* 1-564-948-21	PIN, CONNECTOR 3P				
CN8002	* 1-564-948-21	PIN, CONNECTOR 3P				
CN8003	* 1-564-948-21	PIN, CONNECTOR 3P				
CN8004	* 1-564-948-21	PIN, CONNECTOR 3P				
CN8005	* 1-564-948-21	PIN, CONNECTOR 3P				
CN8201	1-778-393-11	PIN, PC CONNECTOR 96P				
		<DIODE>				
D8001	8-719-800-76	DIODE 1SS226				
D8002	8-719-800-76	DIODE 1SS226				
D8003	8-719-800-76	DIODE 1SS226				
D8004	8-719-800-76	DIODE 1SS226				
D8005	8-719-800-76	DIODE 1SS226				
D8006	8-719-800-76	DIODE 1SS226				
D8007	8-719-800-76	DIODE 1SS226				
D8008	8-719-801-78	DIODE 1SS184				
D8009	8-719-801-78	DIODE 1SS184				
D8012	8-719-801-78	DIODE 1SS184				
D8013	8-719-800-76	DIODE 1SS226				
D8014	8-719-800-76	DIODE 1SS226				
D8015	8-719-800-76	DIODE 1SS226				

QA

REF NO.	PART NO.	DESCRIPTION	REMARK
D8016	8-719-800-76	DIODE 1SS226	
D8201	8-719-800-76	DIODE 1SS226	
D8202	8-719-800-76	DIODE 1SS226	
D8203	8-719-800-76	DIODE 1SS226	
D8204	8-719-801-78	DIODE 1SS184	
D8205	8-719-801-78	DIODE 1SS184	
D8206	8-719-801-78	DIODE 1SS184	
D8207	8-719-800-76	DIODE 1SS226	
D8208	8-719-800-76	DIODE 1SS226	
		<FILTER>	
FL8401	1-233-587-11	FILTER, LOW PASS	
FL8402	1-233-587-11	FILTER, LOW PASS	
FL8403	1-233-587-11	FILTER, LOW PASS	
		<IC>	
IC8001	8-759-011-65	IC MC74HC4053F	
IC8002	8-759-011-64	IC MC74HC4052F	
IC8003	8-759-981-48	IC TL082M	
IC8004	8-759-510-71	IC BA10358F-E2	
IC8005	8-759-092-82	IC SN75157PS-ELL2000	
IC8006	8-759-510-71	IC BA10358F-E2	
IC8007	8-759-981-48	IC TL082M	
IC8008	8-759-491-36	IC TC74VHCT244AF(EL)	
IC8009	8-759-092-82	IC SN75157PS-ELL2000	
IC8010	8-759-185-82	IC TC74VHC153F(EL)	
IC8201	8-759-335-28	IC TA78M09F(TE16L)	
IC8202	8-759-032-20	IC MC74HC32AF	
IC8203	8-759-235-19	IC TC74HC08AF(EL)	
IC8204	8-759-032-11	IC MC74HC04AF	
IC8205	8-759-460-74	IC BA05FP-E2	
IC8206	8-759-431-38	IC MAX4121CSA-TE2	
IC8207	8-759-431-38	IC MAX4121CSA-TE2	
IC8208	8-759-431-38	IC MAX4121CSA-TE2	
IC8209	8-759-431-38	IC MAX4121CSA-TE2	
IC8210	8-759-431-38	IC MAX4121CSA-TE2	
IC8211	8-759-431-38	IC MAX4121CSA-TE2	
IC8212	8-759-537-95	IC OPA658U-T2	
IC8213	8-759-537-95	IC OPA658U-T2	
IC8214	8-759-537-95	IC OPA658U-T2	
IC8215	8-759-537-95	IC OPA658U-T2	
IC8216	8-759-537-95	IC OPA658U-T2	
IC8217	8-759-537-95	IC OPA658U-T2	
IC8401	8-759-537-95	IC OPA658U-T2	
IC8402	8-759-537-95	IC OPA658U-T2	
IC8403	8-759-537-95	IC OPA658U-T2	
		<JACK>	
J8001	* 1-694-163-11	TERMINAL BOARD ASSY, I/O	
J8002	1-565-639-11	JACK, PIN 1P	
J8003	1-565-641-11	JACK, PIN 1P	
		<COIL>	
L8001	1-412-058-11	INDUCTOR CHIP 10µH	
L8002	1-412-058-11	INDUCTOR CHIP 10µH	
L8003	1-412-058-11	INDUCTOR CHIP 10µH	
L8004	1-412-058-11	INDUCTOR CHIP 10µH	
L8005	1-403-659-11	INDUCTOR 10NH	
L8006	1-403-659-11	INDUCTOR 10NH	
L8007	1-403-659-11	INDUCTOR 10NH	
L8008	1-403-664-11	INDUCTOR 27NH	
L8009	1-403-664-11	INDUCTOR 27NH	
L8010	1-403-664-11	INDUCTOR 27NH	
L8201	1-412-533-21	INDUCTOR 47µH	
L8202	1-412-533-21	INDUCTOR 47µH	
L8203	1-412-533-21	INDUCTOR 47µH	
		<TRANSISTOR>	
Q8001	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8002	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8005	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8006	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8007	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8008	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8011	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8012	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8013	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8014	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8015	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8016	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8017	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8018	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8019	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8020	8-729-101-07	TRANSISTOR 2SB798-DL	
Q8201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8205	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8206	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8401	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q8402	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q8403	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q8404	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q8405	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q8406	8-729-112-65	TRANSISTOR 2SA1462-Y33	
		<RESISTOR>	
R8001	1-220-259-11	RES,CHIP 150 5% 1/4W	
R8002	1-220-259-11	RES,CHIP 150 5% 1/4W	
R8003	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R8004	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R8005	1-220-259-11	RES,CHIP 150 5% 1/4W	
R8006	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8007	1-220-259-11	RES,CHIP 150 5% 1/4W	
R8008	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8009	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R8010	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R8011	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8012	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8013	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8014	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R8015	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8016	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8017	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8018	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8019	1-216-089-91	RES,CHIP 47K 5% 1/10W	

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REF NO.	PART NO.	DESCRIPTION			REMARK
R8020	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8021	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8022	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8023	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8024	1-216-025-91	RES,CHIP	100	5%	1/10W
R8025	1-216-025-91	RES,CHIP	100	5%	1/10W
R8027	1-216-041-00	RES,CHIP	470	5%	1/10W
R8028	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8031	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8032	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8033	1-216-095-00	RES,CHIP	82K	5%	1/10W
R8034	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8035	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8036	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8037	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8038	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8039	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8043	1-216-013-00	RES,CHIP	33	5%	1/10W
R8044	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8045	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8046	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8047	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8048	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8049	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8050	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8051	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8052	1-216-041-00	RES,CHIP	470	5%	1/10W
R8054	1-216-041-00	RES,CHIP	470	5%	1/10W
R8057	1-216-041-00	RES,CHIP	470	5%	1/10W
R8058	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R8059	1-216-033-00	RES,CHIP	220	5%	1/10W
R8060	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8061	1-216-041-00	RES,CHIP	470	5%	1/10W
R8062	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8063	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8064	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8065	1-216-029-00	RES,CHIP	150	5%	1/10W
R8066	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8067	1-216-013-00	RES,CHIP	33	5%	1/10W
R8068	1-216-013-00	RES,CHIP	33	5%	1/10W
R8069	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8070	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8073	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8075	1-216-013-00	RES,CHIP	33	5%	1/10W
R8076	1-216-013-00	RES,CHIP	33	5%	1/10W
R8077	1-216-013-00	RES,CHIP	33	5%	1/10W
R8079	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8080	1-216-013-00	RES,CHIP	33	5%	1/10W
R8081	1-216-025-91	RES,CHIP	100	5%	1/10W
R8082	1-216-013-00	RES,CHIP	33	5%	1/10W
R8083	1-216-013-00	RES,CHIP	33	5%	1/10W
R8085	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8086	1-216-013-00	RES,CHIP	33	5%	1/10W
R8087	1-216-025-91	RES,CHIP	100	5%	1/10W
R8088	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8089	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8092	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8093	1-216-113-00	RES,CHIP	470K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION			REMARK
R8094	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8095	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8096	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8097	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8098	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8099	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8100	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8101	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8103	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8104	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8105	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8106	1-216-013-00	RES,CHIP	33	5%	1/10W
R8107	1-216-013-00	RES,CHIP	33	5%	1/10W
R8108	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8109	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8110	1-216-013-00	RES,CHIP	33	5%	1/10W
R8111	1-216-013-00	RES,CHIP	33	5%	1/10W
R8112	1-216-013-00	RES,CHIP	33	5%	1/10W
R8113	1-216-013-00	RES,CHIP	33	5%	1/10W
R8120	1-216-013-00	RES,CHIP	33	5%	1/10W
R8121	1-216-013-00	RES,CHIP	33	5%	1/10W
R8122	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8203	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8204	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8205	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8206	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8207	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8208	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8209	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8210	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8211	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8212	1-216-021-00	RES,CHIP	68	5%	1/10W
R8213	1-216-021-00	RES,CHIP	68	5%	1/10W
R8214	1-216-021-00	RES,CHIP	68	5%	1/10W
R8215	1-216-021-00	RES,CHIP	68	5%	1/10W
R8216	1-216-021-00	RES,CHIP	68	5%	1/10W
R8217	1-216-021-00	RES,CHIP	68	5%	1/10W
R8218	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8219	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8220	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8221	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8222	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8223	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8224	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8225	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8226	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8227	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8228	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8229	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8230	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8231	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8232	1-216-295-91	SHORT	0		
R8233	1-216-295-91	SHORT	0		
R8234	1-216-295-91	SHORT	0		
R8235	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8236	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8237	1-216-641-11	METAL CHIP	390	0.50%	1/10W

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REF NO.	PART NO.	DESCRIPTION			REMARK
R8238	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8239	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8240	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8241	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8242	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8243	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8244	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8245	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8246	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8247	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8248	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8249	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8250	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8251	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8252	1-216-295-91	SHORT	0		
R8253	1-216-295-91	SHORT	0		
R8254	1-216-295-91	SHORT	0		
R8255	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8256	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8257	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8258	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8259	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8260	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8261	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8262	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8263	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8264	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8265	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8266	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R8267	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8268	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8269	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8270	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8271	1-216-001-00	RES,CHIP	10	5%	1/10W
R8272	1-216-001-00	RES,CHIP	10	5%	1/10W
R8273	1-216-001-00	RES,CHIP	10	5%	1/10W
R8274	1-216-025-91	RES,CHIP	100	5%	1/10W
R8275	1-216-025-91	RES,CHIP	100	5%	1/10W
R8276	1-216-025-91	RES,CHIP	100	5%	1/10W
R8277	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8278	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8279	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8280	1-216-025-91	RES,CHIP	100	5%	1/10W
R8281	1-216-025-91	RES,CHIP	100	5%	1/10W
R8282	1-216-025-91	RES,CHIP	100	5%	1/10W
R8401	1-216-017-91	RES,CHIP	47	5%	1/10W
R8402	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8403	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8404	1-216-017-91	RES,CHIP	47	5%	1/10W
R8405	1-216-017-91	RES,CHIP	47	5%	1/10W
R8406	1-216-097-91	RES,CHIP	100K	5%	1/10W
R8407	1-216-049-91	RES.CHIP	1K	5%	1/10W
R8408	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8409	1-216-049-91	RES.CHIP	1K	5%	1/10W
R8410	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8411	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8412	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8413	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8414	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8415	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8416	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8417	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8418	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R8419	1-216-025-91	RES,CHIP	100	5%	1/10W
R8420	1-216-025-91	RES,CHIP	100	5%	1/10W
R8421	1-216-025-91	RES,CHIP	100	5%	1/10W
R8422	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8423	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8424	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8425	1-216-017-91	RES,CHIP	47	5%	1/10W
R8426	1-216-017-91	RES,CHIP	47	5%	1/10W
R8427	1-216-017-91	RES,CHIP	47	5%	1/10W
R8428	1-216-295-91	SHORT	0		
R8429	1-216-295-91	SHORT	0		
R8430	1-216-295-91	SHORT	0		
R8431	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8432	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8433	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R8434	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R8435	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R8436	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R8443	1-216-081-00	RES,CHIP	22K	5%	1/10W
R8444	1-216-081-00	RES,CHIP	22K	5%	1/10W
R8445	1-216-081-00	RES,CHIP	22K	5%	1/10W

<RELAY>

RY8201	1-755-177-11	RELAY
RY8202	1-755-177-11	RELAY
RY8203	1-755-177-11	RELAY
RY8204	1-755-177-11	RELAY
RY8205	1-755-177-11	RELAY
RY8206	1-755-177-11	RELAY
RY8207	1-755-177-11	RELAY

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	* A-1275-161-A	QB COMPL(X2000U/X2000M)			
		********			
	* X-4036-248-1	PANEL (QB) ASSY, REAR			
	4-396-203-01	SCREW (+B M3X12), PREVENTION			
	7-685-647-79	SCREW +BVTP	3X10 TYPE2 IT-3		

<CAPACITOR>

C8501	1-104-664-11	ELECT	47MF	20%	16V
C8502	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8503	1-104-664-11	ELECT	47MF	20%	16V
C8504	1-104-664-11	ELECT	47MF	20%	16V
C8505	1-104-664-11	ELECT	47MF	20%	16V
C8506	1-109-889-11	ELECT	1MF	20%	50V
C8507	1-109-889-11	ELECT	1MF	20%	50V
C8508	1-126-786-11	ELECT	47MF	20%	16V
C8509	1-126-786-11	ELECT	47MF	20%	16V
C8510	1-126-786-11	ELECT	47MF	20%	16V
C8511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8512	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

REF NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN8501	* 1-564-728-11	PIN, CONNECTOR (SMALL TYPE)12P			
CN8502	* 1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
		<DIODE>			
D8501	8-719-801-78	DIODE 1SS184			
D8502	8-719-106-53	DIODE RD10M-B2			
D8503	8-719-106-53	DIODE RD10M-B2			
D8505	8-719-106-53	DIODE RD10M-B2			
		<JACK>			
J8502	1-565-838-11	JACK BLOCK, PIN 2P			
J8503	1-565-838-11	JACK BLOCK, PIN 2P			
		<TRANSISTOR>			
Q8501	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q8502	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q8503	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q8504	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R8501	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8502	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8503	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8504	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8505	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8506	1-216-631-11	METAL CHIP	150	0.50% 1/10W	
R8507	1-216-017-91	RES,CHIP	47	5% 1/10W	
R8508	1-216-017-91	RES,CHIP	47	5% 1/10W	
R8509	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R8510	1-216-017-91	RES,CHIP	47	5% 1/10W	
R8511	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8512	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8513	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8514	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8515	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8516	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8517	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8518	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8519	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8520	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8521	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8522	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8523	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R8524	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R8525	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R8526	1-216-089-91	RES,CHIP	47K	5% 1/10W	
R8527	1-216-089-91	RES,CHIP	47K	5% 1/10W	
R8528	1-216-089-91	RES,CHIP	47K	5% 1/10W	
R8529	1-216-041-00	RES,CHIP	470	5% 1/10W	
R8530	1-216-041-00	RES,CHIP	470	5% 1/10W	
R8531	1-216-041-00	RES,CHIP	470	5% 1/10W	
R8532	1-216-017-91	RES,CHIP	47	5% 1/10W	
R8533	1-216-017-91	RES,CHIP	47	5% 1/10W	
R8534	1-216-017-91	RES,CHIP	47	5% 1/10W	
		<RELAY>			
RY8501	1-515-716-11	RELAY (TQ2-5V)			

REF NO.	PART NO.	DESCRIPTION			REMARK
		<TERMINAL BOARD>			
TB8501	1-694-477-11	TERMINAL BOARD ASSY, I/O			
**********					
	* A-1275-166-A	QB COMPL(IFB-X2000E)(X2000E)			
		**********			
	* X-4036-245-1	PANEL(QB/E)ASSY, REAR			
	4-396-203-01	SCREW(+B M3X12), PREVENTION			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3			
		<CAPACITOR>			
C8502	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
		<CONNECTOR>			
CN8501	* 1-564-728-11	PIN, CONNECTOR(SMALL TYPE) 12P			
CN8502	* 1-564-720-11	PIN, CONNECTOR(SMALL TYPE) 4P			
		<JACK>			
J8503	1-565-838-11	JACK BLOCK, PIN 2P			
		<RESISTOR>			
R8513	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8514	1-216-025-91	RES,CHIP	100	5% 1/10W	
R8515	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8516	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8517	1-216-097-91	RES,CHIP	100K	5% 1/10W	
R8518	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8519	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8520	1-216-113-00	RES,CHIP	470K	5% 1/10W	
R8521	1-216-113-00	RES,CHIP	470K	5% 1/10W	
**********					
	* 1-670-889-11	PWB, UA			
		*******			
		<CONNECTOR>			
CN601	* 1-564-507-11	PLUG, CONNECTOR 4P			
		<PHOTO COUPLER>			
PH601	1-806-293-12	PHOTO INTERRUPTER EE-SX1071			
		<TRANSISTOR>			
Q601	1-801-806-11	TRANSISTOR DTC144EKA-T146			
		<RESISTOR>			
R601	1-216-031-00	RES,CHIP	180	5% 1/10W	
**********					
	* 1-670-890-11	PWB, UB			
		*******			
		<CONNECTOR>			
CN701	* 1-564-517-11	PLUG, CONNECTOR 2P			

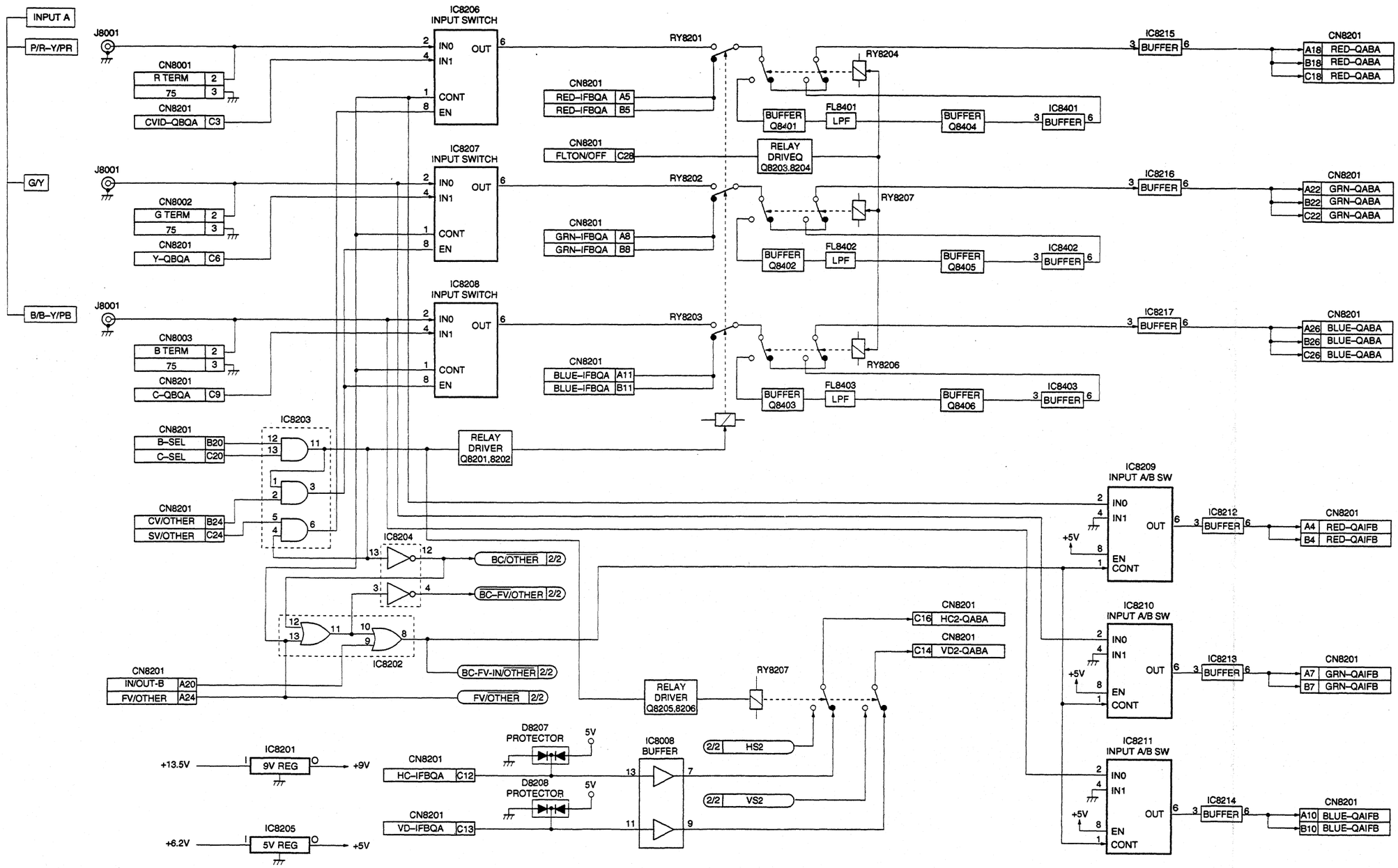
UB **UC** **V** **XA** **XB** **XC**

REF NO.	PART NO.	DESCRIPTION	REMARK
		<SWITCH>	
S701	1-570-245-11	SWITCH, MICRO	
**********			
	* 1-670-895-11	PWB, UC *******	
		<CONNECTOR>	
CN751	* 1-564-517-11	PLUG, CONNECTOR 2P	
		<SWITCH>	
S751	1-570-245-11	SWITCH, MICRO	
**********			
	* 1-670-892-11	PWB, V ******	
	1-778-697-11	HOUSING, CONNECTOR 3P	
		<CONNECTOR>	
CN901	* 1-564-519-11	PLUG, CONNECTOR 4P	
		<FUSE>	
F901	⚠ 1-532-990-11	FUSE, TEMPERATURE (1A/250V)	
		<SWITCH>	
S901	1-692-947-11	SWITCH, THERMAL GUARD	
**********			
	* A-1390-879-A	XA MOUNT ********	
		<CONNECTOR>	
CN501	1-778-391-11	SOCKET, PC CONNECTOR 96P	
CN502	1-778-391-11	SOCKET, PC CONNECTOR 96P	
CN503	1-778-391-11	SOCKET, PC CONNECTOR 96P	
CN504	1-778-391-11	SOCKET, PC CONNECTOR 96P	
CN505	* 1-564-714-11	PIN, CONNECTOR (SMALL TYPE)12P	
CN506	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
CN507	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
		<RESISTOR>	
R501	1-216-396-11	METAL OXIDE 3.9 5% 3W F	
R502	1-216-396-11	METAL OXIDE 3.9 5% 3W F	
R503	1-216-396-11	METAL OXIDE 3.9 5% 3W F	
**********			
	* A-1390-880-A	XB MOUNT ********	
**********			

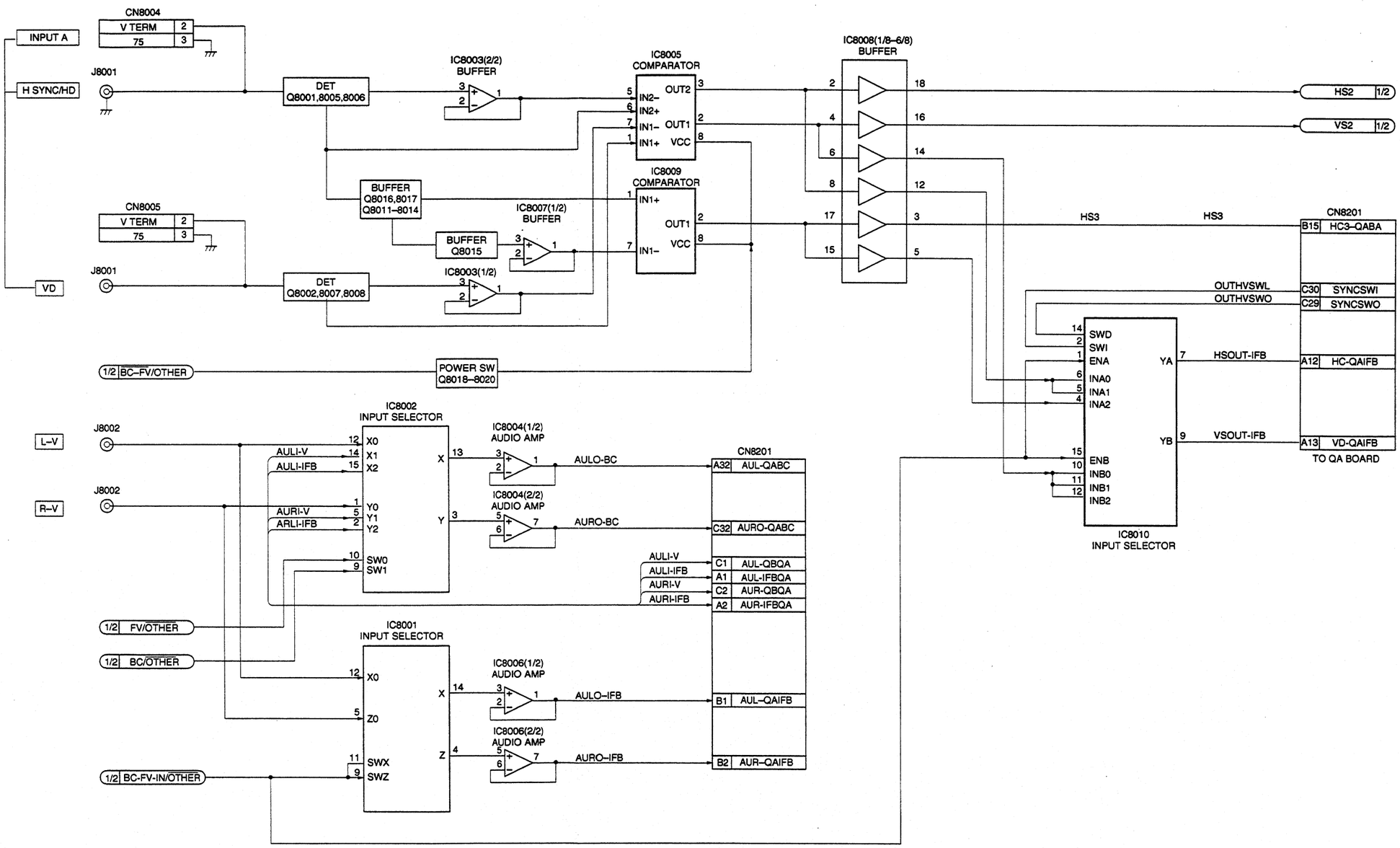
REF NO.	PART NO.	DESCRIPTION	REMARK
	* A-1390-906-A	XC MOUNT ********	
		<CONNECTOR>	
CN551	* 1-564-712-11	PIN, CONNECTOR (SMALL TYPE)10P	
CN552	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
CN553	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CN554	* 1-564-716-11	PIN, CONNECTOR (SMALL TYPE)14P	
CN555	* 1-564-712-11	PIN, CONNECTOR (SMALL TYPE)10P	
CN556	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
CN557	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CN558	* 1-564-716-11	PIN, CONNECTOR (SMALL TYPE)14P	
**********			
		MISCELLANEOUS **********	
⚠	1-468-286-11	POWER BLOCK	
	1-500-037-11	CORE, FERRITE (WITH CASE)	
	1-500-051-11	BEAD, FERRITE (WITH CASE)	
	1-504-673-11	SPEAKER (12.6X5.7CM)	
	* 1-506-622-11	CONNECTOR, PS 14P	
⚠	1-533-694-11	FUSE (5A/250V) (X2000U)	
	1-533-702-11	HOLDER, FUSE (X2000E/X2000M)	
	* 1-533-703-11	HOLDER, FUSE (X2000U)	
	1-543-947-11	CORE, FERRITE	
	1-576-233-11	FUSE (H.B.C.) 5A/250V (X2000E/X2000M)	
⚠	1-590-151-11	CORD SET, POWER (250V/100A) (X2000E/X2000M)	
	1-758-234-11	OPTICAL UNIT	
	1-763-238-11	FAN, DC	
	1-763-256-11	FAN, DC	
	1-763-257-11	FAN, DC	
	1-763-259-11	FAN, DC	
	1-763-260-11	FAN, DC	
	1-763-274-11	FAN, DC	
⚠	1-775-981-11	CORD SET, POWER (125V/150A) (X2000U)	
	1-782-021-11	CORD, CONNECTION	
	1-785-523-11	TERMINATOR, D SUB 9P	
⚠	1-785-591-11	INLET, AC	
**********			

REF NO.	PART NO.	DESCRIPTION	REMARK
		ACCESSORY	
		*********	
	* 1-506-622-11	CONNECTOR, PS 14P	
⚠	1-590-151-11	CORD SET, POWER (250V/100A) (X2000E/X2000M)	
⚠	1-775-981-11	CORD SET, POWER (125V/150A) (X2000U)	
	1-782-021-11	CORD, CONNECTION	
	1-785-523-11	TERMINATOR, D SUB 9P	
	3-865-344-11	OPERATING INSTRUCTIONS(X2000U/X2000E/X2000M) (ENGLISH/FRENCH/SPANISH)	
	3-865-344-21	OPERATING INSTRUCTIONS(X2000E) (GERMAN/ITALIAN)	
	3-865-344-31	OPERATING INSTRUCTIONS(X2000M) (CHINESE)	
	3-865-345-11	MANUAL, INSTALLATION(X2000U/X2000E/X2000M) (ENGLISH/FRENCH/SPANISH)	
	3-865-345-21	MANUAL, INSTALLATION(X2000E) (GERMAN/ITALIAN)	
	3-865-345-31	MANUAL, INSTALLATION(X2000M) (CHINESE)	
	4-068-063-02	SCREW, WASHER	
	4-068-100-01	WASHER (TF), LENS	
	4-068-130-01	RING (TF), LENS	
		IFB-X2000E	
		**********	
	3-865-115-11	MANUAL, INSTRUCTION	
		PSS-2000	
		********	
	3-865-453-01	INSTRUCTION MANUAL	
	4-056-753-01	SPACER	
	4-068-372-01	BOLT(M10X20), HEXAGON HEAD	
	7-623-215-22	WASHER(M10), LOCK SPRING	
	7-683-353-07	BOLT(M6X12), HEXAGON HEAD	
	7-683-380-07	BOLT(M8X20), HEXAGON	
	7-688-000-22	WASHER(M8), FLAT	
	7-688-000-23	WASHER(M10), PLAIN	
	7-688-006-12	WASHER(M6), PLAIN	
		SU-PJ2000	
		*********	
	3-865-454-01	INSTALLATION MANUAL	
	4-068-378-01	WASHER(M10), PLAIN	
	4-068-379-01	SCREW(M10X20)	
	4-068-380-01	WASHER(M10), SPRING LOCK	
	4-068-381-01	SCREW(M5X12)	
	* 4-068-382-01	BRACKET, STACK	
	* 4-068-383-01	SHAFT, STACK	

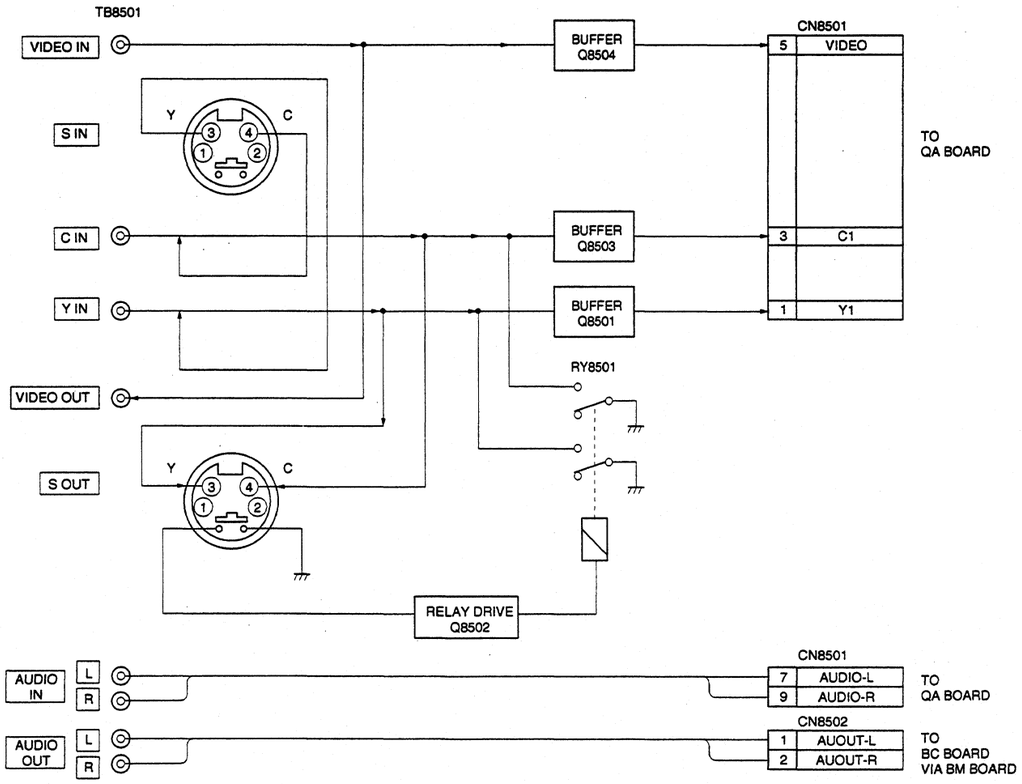
SECTION 8
BLOCK DIAGRAMS



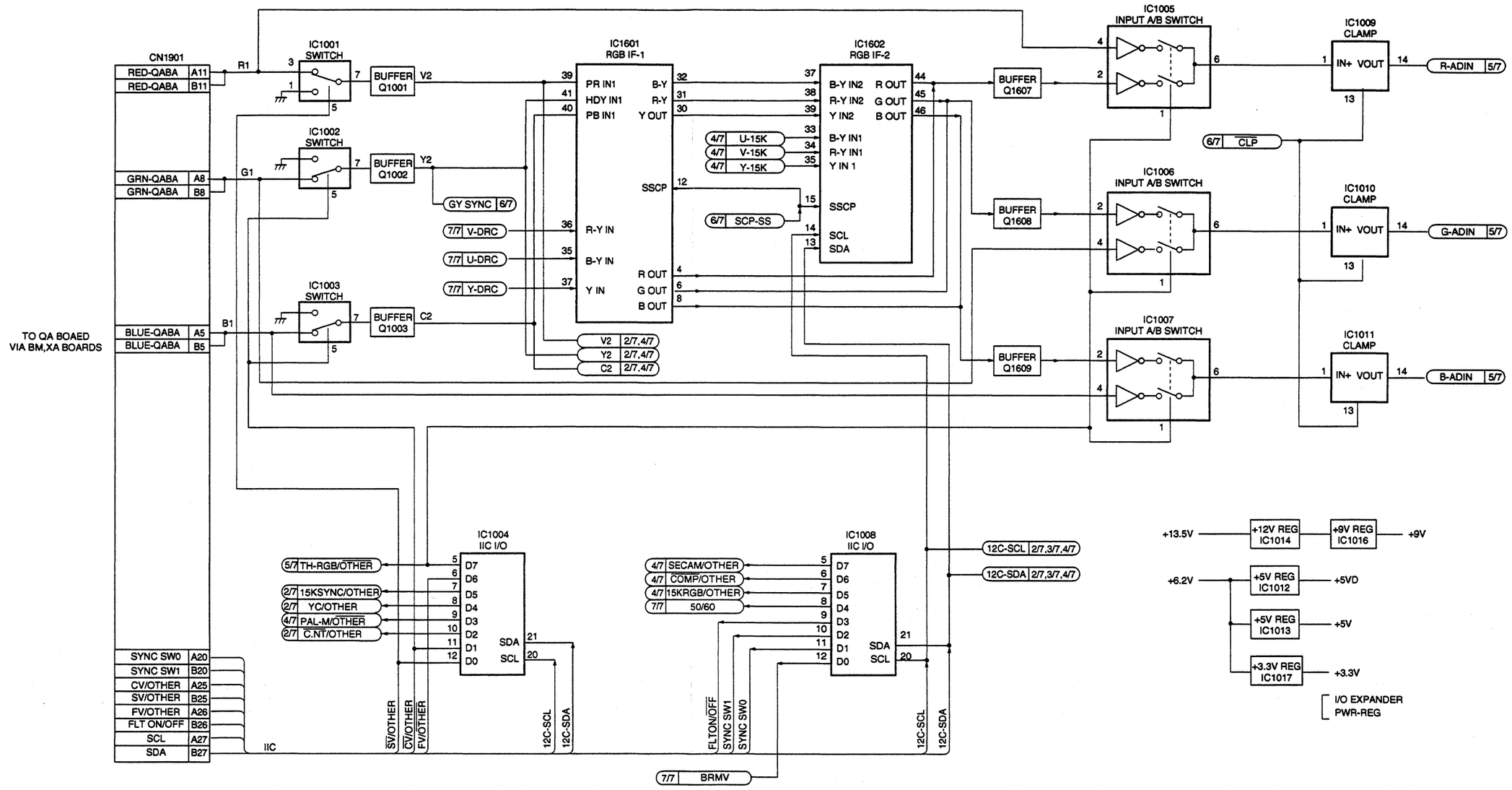
QA BLOCK (1/2)


INPUT A
H SYNC/HD
VD
CN8004
V TERM 2
75 3
CN8005
V TERM 2
75 3
J8001
J8001
J8001
DET Q8001,8005,8006
DET Q8002,8007,8008
BUFFER Q8016,8017 Q8011–8014
BUFFER Q8015
IC8003(2/2) BUFFER
IC8003(1/2)
IC8007(1/2) BUFFER
IC8005 COMPARATOR
IC8009 COMPARATOR
IC8008(1/8–6/8) BUFFER
1/2 BC–FV/OTHER
POWER SW Q8018–8020
HS2 1/2
VS2 1/2
HS3
HS3
CN8201
B15 HC3-QABA
C30 SYNCSWI
C29 SYNCSWO
OUTHVSWL
OUTHVSWO
A12 HC-QAIFB
HSOUT-IFB
VSOUT-IFB
A13 VD-QAIFB
TO QA BOARD
IC8010 INPUT SELECTOR
L–V
R–V
J8002
J8002
IC8002 INPUT SELECTOR
IC8004(1/2) AUDIO AMP
IC8004(2/2) AUDIO AMP
AULI-V
AULI-IFB
AURI-V
ARLI-IFB
AULO-BC
AURO-BC
CN8201
A32 AUL-QABC
C32 AURO-QABC
C1 AUL-QBQA
A1 AUL-IFBQA
C2 AUR-QBQA
A2 AUR-IFBQA
1/2 FV/OTHER
1/2 BC/OTHER
1/2 BC-FV-IN/OTHER
IC8001 INPUT SELECTOR
IC8006(1/2) AUDIO AMP
IC8006(2/2) AUDIO AMP
AULO–IFB
AURO–IFB
B1 AUL–QAIFB
B2 AUR–QAIFB

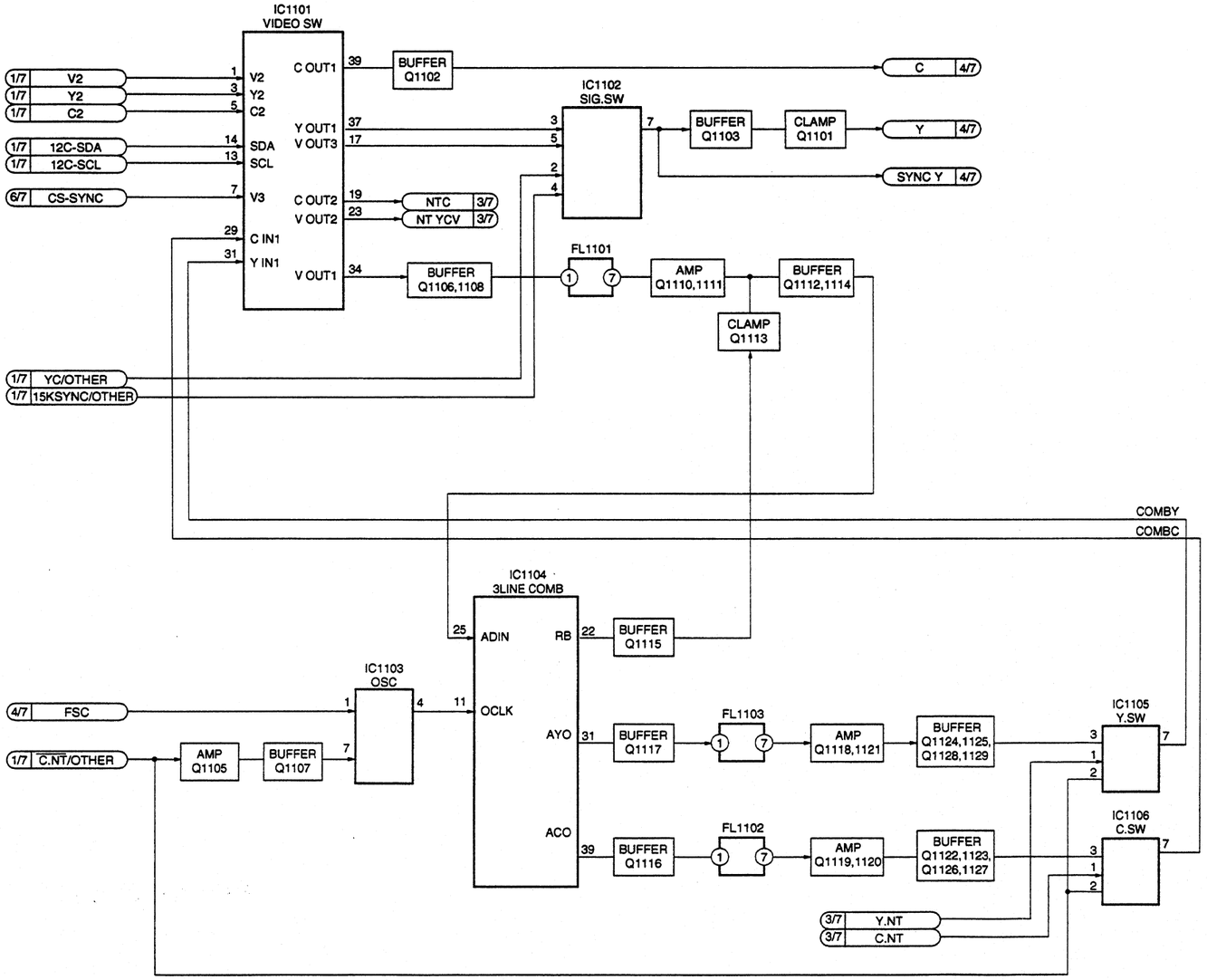
QA BLOCK (2/2)


TB8501
VIDEO IN
S IN
Y
C
C IN
Y IN
VIDEO OUT
S OUT
BUFFER Q8504
BUFFER Q8503
BUFFER Q8501
RY8501
RELAY DRIVE Q8502
CN8501
5 VIDEO
3 C1
1 Y1
TO QA BOARD
AUDIO IN
L
R
CN8501
7 AUDIO-L
9 AUDIO-R
TO QA BOARD
AUDIO OUT
CN8502
1 AUOUT-L
2 AUOUT-R
TO BC BOARD VIA BM BOARD

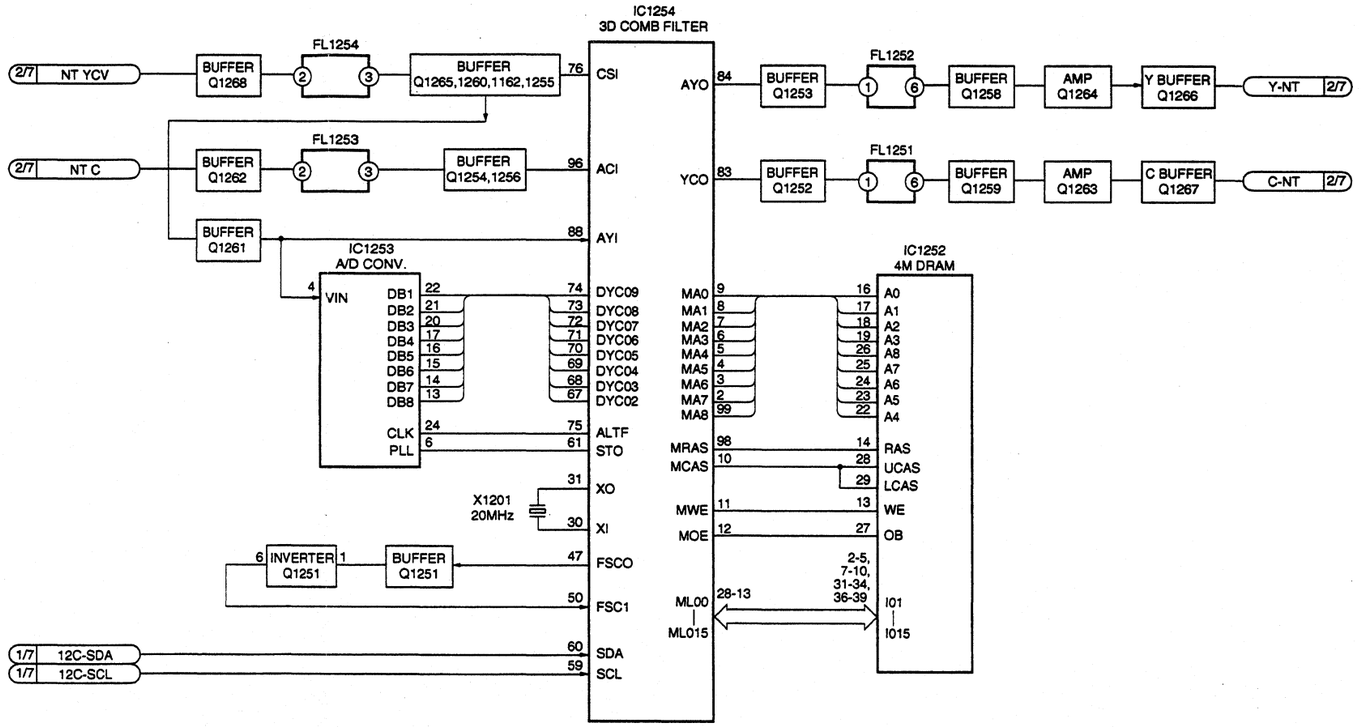
QB BLOCK


CN1901
RED-QABA A11
RED-QABA B11
GRN-QABA A8
GRN-QABA B8
BLUE-QABA A5
BLUE-QABA B5
TO QA BOAED VIA BM,XA BOARDS
SYNC SW0 A20
SYNC SW1 B20
CV/OTHER A25
SV/OTHER B25
FV/OTHER A26
FLT ON/OFF B26
SCL A27
SDA B27
IIC
R1
G1
B1
IC1001 SWITCH
IC1002 SWITCH
IC1003 SWITCH
BUFFER Q1001
BUFFER Q1002
BUFFER Q1003
V2
Y2
C2
GY SYNC 6/7
7/7 V-DRC
7/7 U-DRC
7/7 Y-DRC
IC1601 RGB IF-1
PR IN1
HDY IN1
PB IN1
R-Y IN
B-Y IN
Y IN
B-Y
R-Y
Y OUT
SSCP
R OUT
G OUT
B OUT
V2 2/7,4/7
Y2 2/7,4/7
C2 2/7,4/7
IC1602 RGB IF-2
B-Y IN2
R-Y IN2
Y IN2
B-Y IN1
R-Y IN1
Y IN 1
SSCP
SCL
SDA
R OUT
G OUT
B OUT
4/7 U-15K
4/7 V-15K
4/7 Y-15K
6/7 SCP-SS
BUFFER Q1607
BUFFER Q1608
BUFFER Q1609
IC1005 INPUT A/B SWITCH
IC1006 INPUT A/B SWITCH
IC1007 INPUT A/B SWITCH
IC1009 CLAMP
IC1010 CLAMP
IC1011 CLAMP
IN+ VOUT
6/7 CLP
R-ADIN 5/7
G-ADIN 5/7
B-ADIN 5/7
IC1004 IIC I/O
5/7 TH-RGB/OTHER
2/7 15KSYNC/OTHER
2/7 YC/OTHER
4/7 PAL-M/OTHER
2/7 C.NT/OTHER
SV/OTHER
CV/OTHER
FV/OTHER
12C-SCL
12C-SDA
IC1008 IIC I/O
4/7 SECAM/OTHER
4/7 COMP/OTHER
4/7 15KRGB/OTHER
7/7 50/60
FLTON/OFF
SYNC SW1
SYNC SW0
7/7 BRMV
12C-SCL 2/7,3/7,4/7
12C-SDA 2/7,3/7,4/7
+13.5V
+12V REG IC1014
+9V REG IC1016
+9V
+6.2V
+5V REG IC1012
+5VD
+5V REG IC1013
+5V
+3.3V REG IC1017
+3.3V
I/O EXPANDER PWR-REG

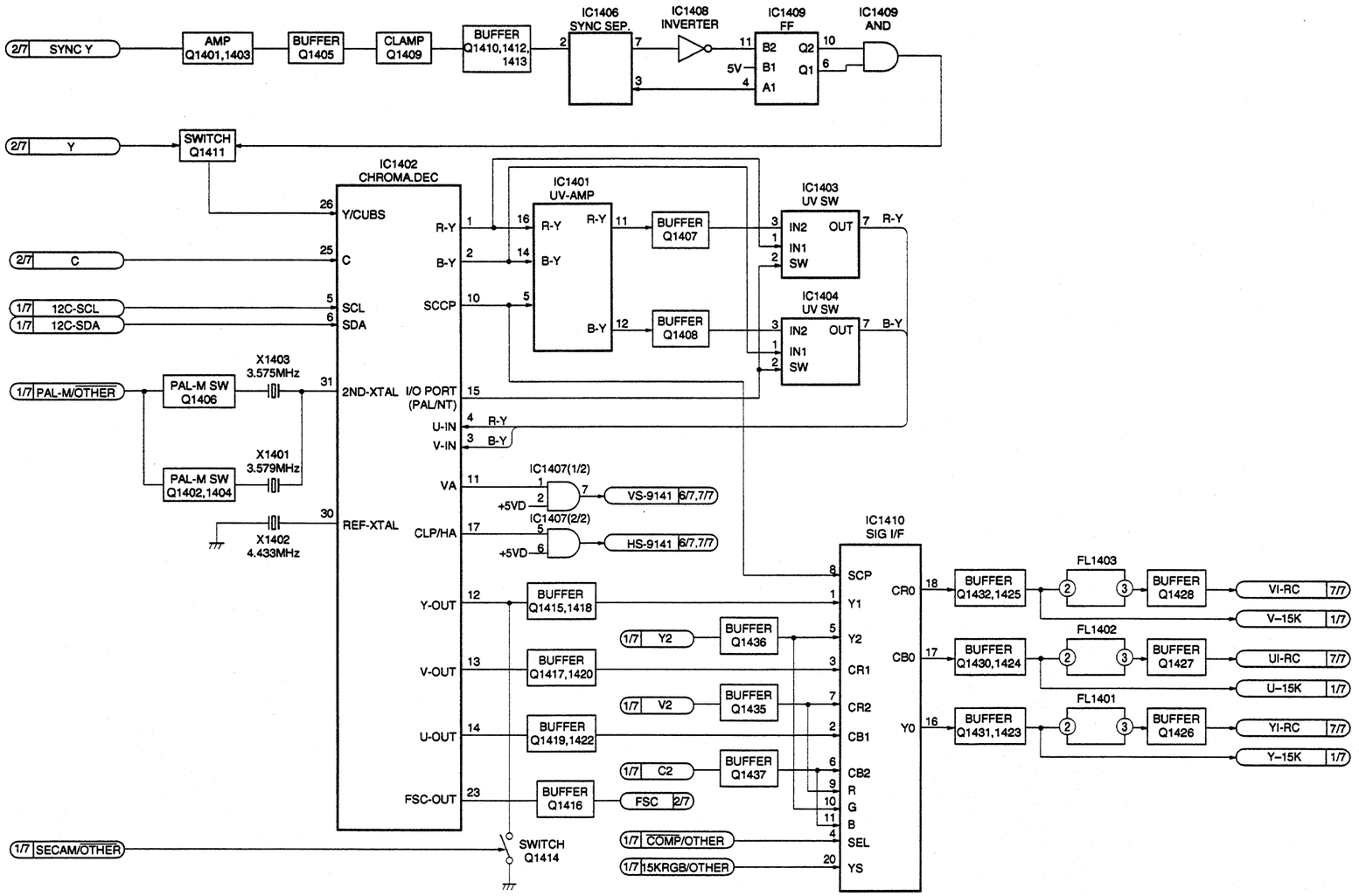
BA BLOCK (1/7)


IC1101
VIDEO SW
1/7 V2
1/7 Y2
1/7 C2
1/7 12C-SDA
1/7 12C-SCL
6/7 CS-SYNC
1/7 YC/OTHER
1/7 15KSYNC/OTHER
V2
Y2
C2
SDA
SCL
V3
C IN1
Y IN1
C OUT1
Y OUT1
V OUT3
C OUT2
V OUT2
V OUT1
BUFFER Q1102
NTC 3/7
NT YCV 3/7
BUFFER Q1106,1108
IC1102
SIG.SW
BUFFER Q1103
CLAMP Q1101
C 4/7
Y 4/7
SYNC Y 4/7
FL1101
AMP Q1110,1111
BUFFER Q1112,1114
CLAMP Q1113
COMBY
COMBC
IC1104
3LINE COMB
ADIN
RB
AYO
ACO
BUFFER Q1115
BUFFER Q1117
BUFFER Q1116
IC1103
OSC
4/7 FSC
1/7 C.NT/OTHER
AMP Q1105
BUFFER Q1107
OCLK
FL1103
FL1102
AMP Q1118,1121
AMP Q1119,1120
BUFFER Q1124,1125, Q1128,1129
BUFFER Q1122,1123, Q1126,1127
IC1105
Y.SW
IC1106
C.SW
3/7 Y.NT
3/7 C.NT

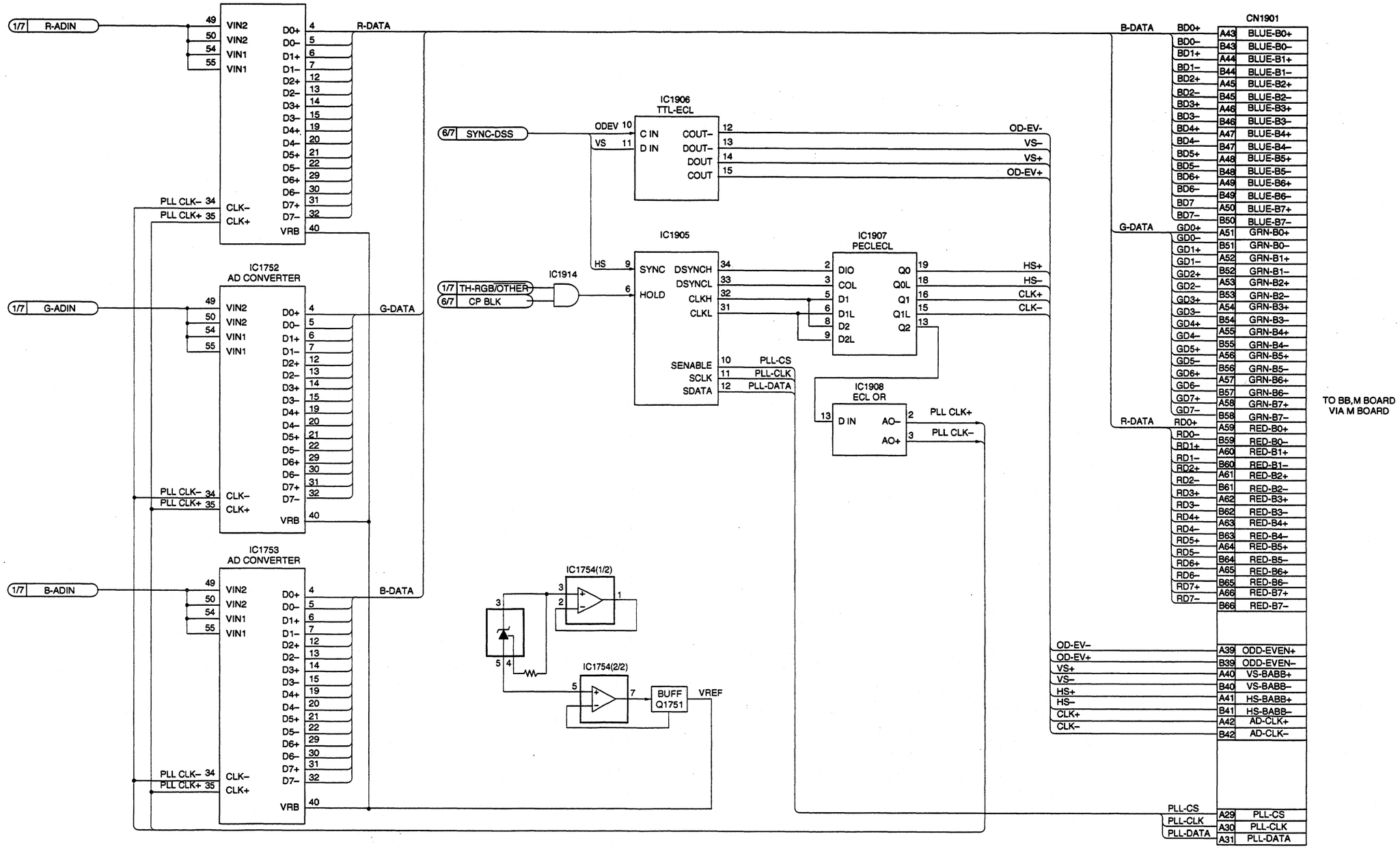
BA BLOCK (2/7)


IC1254
3D COMB FILTER
FL1254
FL1253
FL1252
FL1251
2/7 NT YCV
BUFFER Q1268
BUFFER Q1265,1260,1162,1255
76 CSI
AYO 84
BUFFER Q1253
BUFFER Q1258
AMP Q1264
Y BUFFER Q1266
Y-NT 2/7
2/7 NT C
BUFFER Q1262
BUFFER Q1254,1256
96 ACI
YCO 83
BUFFER Q1252
BUFFER Q1259
AMP Q1263
C BUFFER Q1267
C-NT 2/7
BUFFER Q1261
88 AYI
IC1253
A/D CONV.
IC1252
4M DRAM
4 VIN
DB1 22
DB2 21
DB3 20
DB4 17
DB5 16
DB6 15
DB7 14
DB8 13
74 DYC09
73 DYC08
72 DYC07
71 DYC06
70 DYC05
69 DYC04
68 DYC03
67 DYC02
CLK 24
PLL 6
75 ALTF
61 STO
31 XO
X1201
20MHz
30 XI
6 INVERTER Q1251 1
BUFFER Q1251
47 FSCO
50 FSC1
1/7 12C-SDA
1/7 12C-SCL
60 SDA
59 SCL
MA0 9
MA1 8
MA2 7
MA3 6
MA4 5
MA5 4
MA6 3
MA7 2
MA8 99
16 A0
17 A1
18 A2
19 A3
26 A8
25 A7
24 A6
23 A5
22 A4
MRAS 98
MCAS 10
14 RAS
28 UCAS
29 LCAS
MWE 11
13 WE
MOE 12
27 OB
ML00
ML015
28-13
2-5, 7-10, 31-34, 36-39
I01
I015

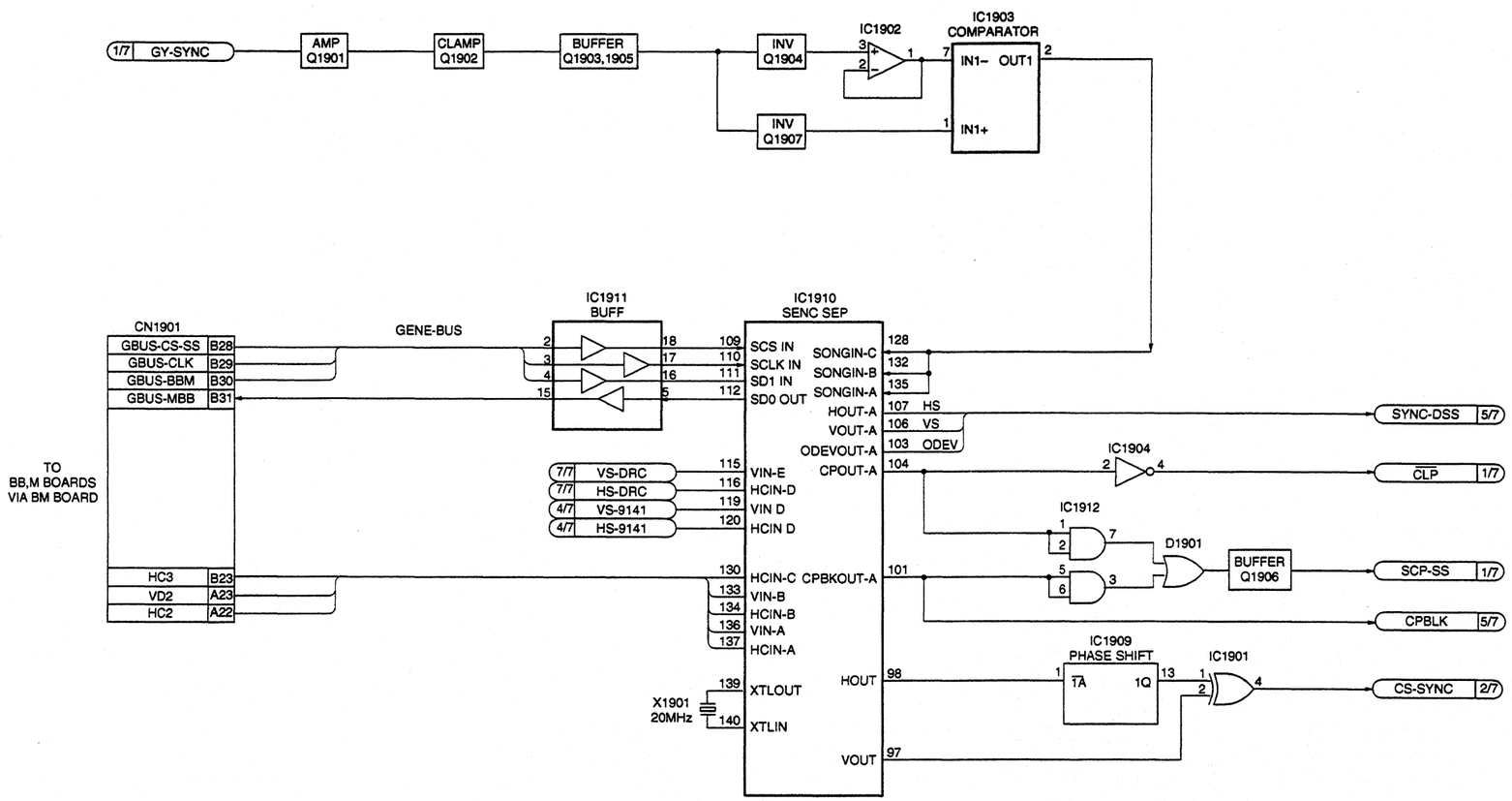
BA BLOCK (3/7)


2/7 SYNC Y
AMP Q1401,1403
BUFFER Q1405
CLAMP Q1409
BUFFER Q1410,1412, 1413
IC1406 SYNC SEP.
IC1408 INVERTER
IC1409 FF
IC1409 AND
5V
B2
B1
A1
Q2
Q1
2/7 Y
SWITCH Q1411
IC1402 CHROMA.DEC
IC1401 UV-AMP
IC1403 UV SW
IC1404 UV SW
Y/CUBS
C
SCL
SDA
R-Y
B-Y
SCCP
BUFFER Q1407
BUFFER Q1408
IN2
IN1
SW
OUT
2/7 C
1/7 12C-SCL
1/7 12C-SDA
1/7 PAL-M/OTHER
PAL-M SW Q1406
X1403 3.575MHz
2ND-XTAL
I/O PORT (PAL/NT)
U-IN
V-IN
PAL-M SW Q1402,1404
X1401 3.579MHz
X1402 4.433MHz
REF-XTAL
IC1407(1/2)
IC1407(2/2)
VA
CLP/HA
+5VD
VS-9141 6/7,7/7
HS-9141 6/7,7/7
Y-OUT
V-OUT
U-OUT
FSC-OUT
BUFFER Q1415,1418
BUFFER Q1417,1420
BUFFER Q1419,1422
BUFFER Q1416
1/7 Y2
1/7 V2
1/7 C2
BUFFER Q1436
BUFFER Q1435
BUFFER Q1437
FSC 2/7
1/7 SECAM/OTHER
SWITCH Q1414
1/7 COMP/OTHER
1/7 15KRGB/OTHER
IC1410 SIG I/F
SCP
Y1
Y2
CR1
CR2
CB1
CB2
R
G
B
SEL
YS
CR0
CB0
Y0
FL1403
FL1402
FL1401
BUFFER Q1432,1425
BUFFER Q1430,1424
BUFFER Q1431,1423
BUFFER Q1428
BUFFER Q1427
BUFFER Q1426
VI-RC 7/7
V–15K 1/7
UI-RC 7/7
U–15K 1/7
YI-RC 7/7
Y–15K 1/7

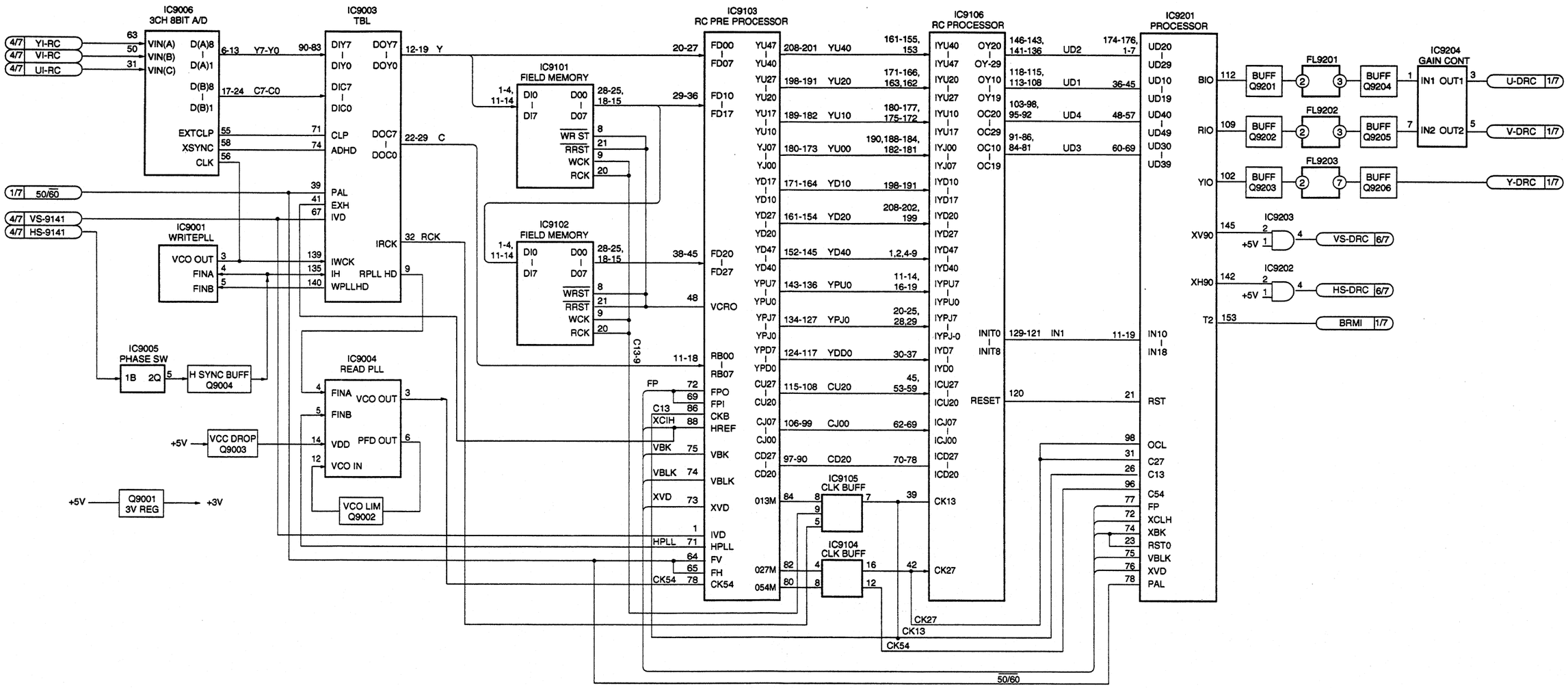
BA BLOCK (4/7)


IC1751
AD CONVERTER
1/7 R-ADIN
VIN2
VIN2
VIN1
VIN1
CLK–
CLK+
PLL CLK– 34
PLL CLK+ 35
D0+
D0–
D1+
D1–
D2+
D2–
D3+
D3–
D4+
D4–
D5+
D5–
D6+
D6–
D7+
D7–
VRB
R-DATA
IC1752
AD CONVERTER
1/7 G-ADIN
G-DATA
IC1753
AD CONVERTER
1/7 B-ADIN
B-DATA
IC1906
TTL-ECL
6/7 SYNC-DSS
ODEV 10
VS 11
C IN
D IN
COUT–
DOUT–
DOUT
COUT
OD-EV-
VS–
VS+
OD-EV+
IC1905
HS 9
SYNC
HOLD
DSYNCH
DSYNCL
CLKH
CLKL
SENABLE
SCLK
SDATA
IC1914
1/7 TH-RGB/OTHER
6/7 CP BLK
IC1907
PECLECL
DIO
COL
D1
D1L
D2
D2L
Q0
Q0L
Q1
Q1L
Q2
HS+
HS–
CLK+
CLK–
PLL-CS
PLL-CLK
PLL-DATA
IC1908
ECL OR
D IN
AO–
AO+
PLL CLK+
PLL CLK–
IC1754(1/2)
IC1754(2/2)
BUFF
Q1751
VREF
CN1901
B-DATA
G-DATA
R-DATA
BD0+ A43 BLUE-B0+
BD0– B43 BLUE-B0–
BD1+ A44 BLUE-B1+
BD1– B44 BLUE-B1–
BD2+ A45 BLUE-B2+
BD2– B45 BLUE-B2–
BD3+ A46 BLUE-B3+
BD3– B46 BLUE-B3–
BD4+ A47 BLUE-B4+
BD4– B47 BLUE-B4–
BD5+ A48 BLUE-B5+
BD5– B48 BLUE-B5–
BD6+ A49 BLUE-B6+
BD6– B49 BLUE-B6–
BD7 A50 BLUE-B7+
BD7– B50 BLUE-B7–
GD0+ A51 GRN-B0+
GD0– B51 GRN-B0–
GD1+ A52 GRN-B1+
GD1– B52 GRN-B1–
GD2+ A53 GRN-B2+
GD2– B53 GRN-B2–
GD3+ A54 GRN-B3+
GD3– B54 GRN-B3–
GD4+ A55 GRN-B4+
GD4– B55 GRN-B4–
GD5+ A56 GRN-B5+
GD5– B56 GRN-B5–
GD6+ A57 GRN-B6+
GD6– B57 GRN-B6–
GD7+ A58 GRN-B7+
GD7– B58 GRN-B7–
RD0+ A59 RED-B0+
RD0– B59 RED-B0–
RD1+ A60 RED-B1+
RD1– B60 RED-B1–
RD2+ A61 RED-B2+
RD2– B61 RED-B2–
RD3+ A62 RED-B3+
RD3– B62 RED-B3–
RD4+ A63 RED-B4+
RD4– B63 RED-B4–
RD5+ A64 RED-B5+
RD5– B64 RED-B5–
RD6+ A65 RED-B6+
RD6– B65 RED-B6–
RD7+ A66 RED-B7+
RD7– B66 RED-B7–
OD-EV– A39 ODD-EVEN+
OD-EV+ B39 ODD-EVEN–
VS+ A40 VS-BABB+
VS– B40 VS-BABB–
HS+ A41 HS-BABB+
HS– B41 HS-BABB–
CLK+ A42 AD-CLK+
CLK– B42 AD-CLK–
PLL-CS A29 PLL-CS
PLL-CLK A30 PLL-CLK
PLL-DATA A31 PLL-DATA
TO BB,M BOARD
VIA M BOARD

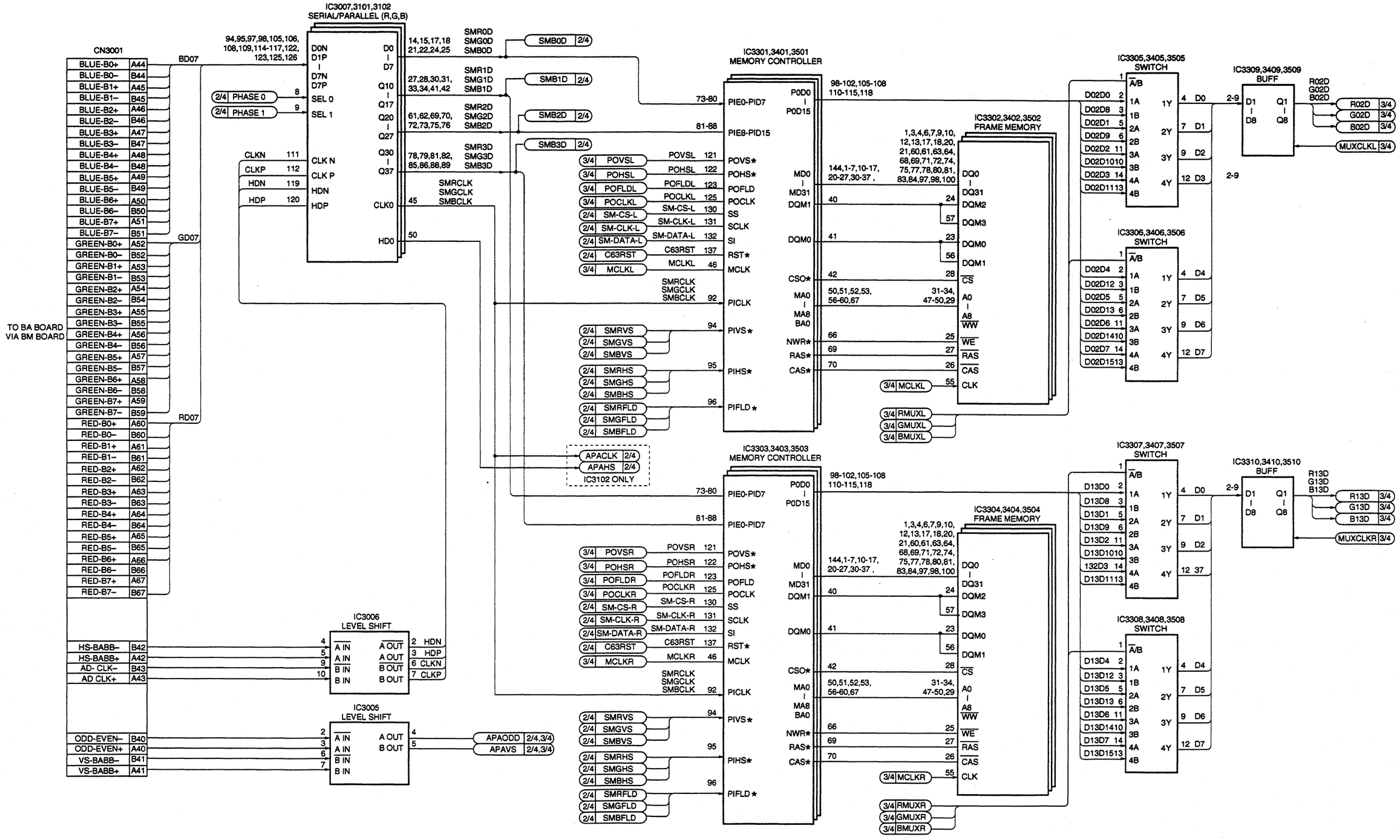
BA BLOCK (5/7)


1/7 GY-SYNC
AMP Q1901
CLAMP Q1902
BUFFER Q1903,1905
INV Q1904
INV Q1907
IC1902
IC1903 COMPARATOR
IN1- OUT1
IN1+
IC1911 BUFF
IC1910 SENC SEP
CN1901
GENE-BUS
GBUS-CS-SS B28
GBUS-CLK B29
GBUS-BBM B30
GBUS-MBB B31
TO BB,M BOARDS VIA BM BOARD
HC3 B23
VD2 A23
HC2 A22
SCS IN
SCLK IN
SD1 IN
SD0 OUT
SONGIN-C
SONGIN-B
SONGIN-A
HOUT-A
VOUT-A
ODEVOUT-A
CPOUT-A
CPBKOUT-A
HOUT
VOUT
HS
VS
ODEV
SYNC-DSS 5/7
IC1904
CLP 1/7
IC1912
D1901
BUFFER Q1906
SCP-SS 1/7
CPBLK 5/7
IC1909 PHASE SHIFT
IC1901
CS-SYNC 2/7
7/7 VS-DRC
7/7 HS-DRC
4/7 VS-9141
4/7 HS-9141
VIN-E
HCIN-D
VIN D
HCIN D
HCIN-C
VIN-B
HCIN-B
VIN-A
HCIN-A
XTLOUT
XTLIN
X1901 20MHz

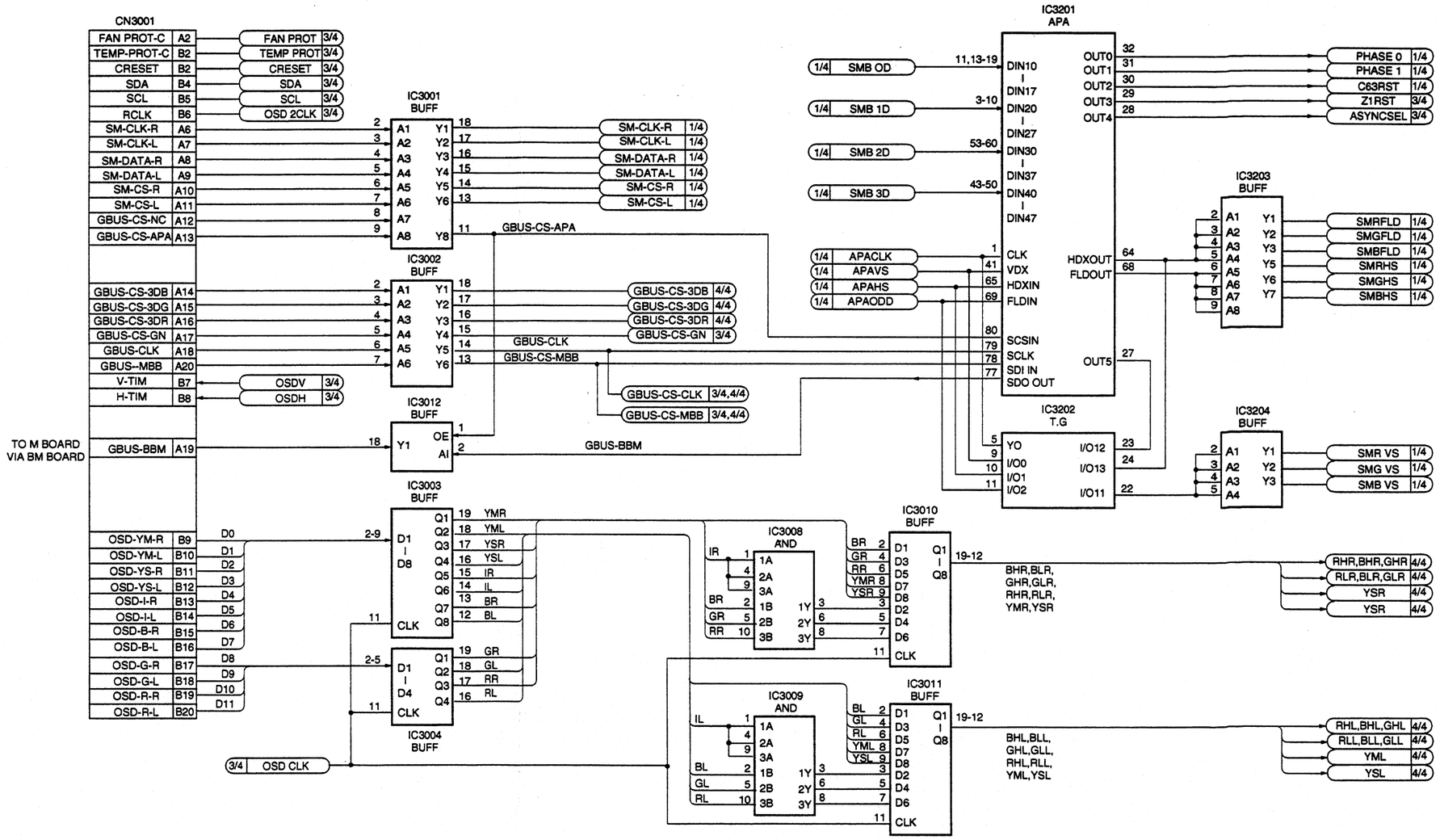
BA BLOCK (6/7)


IC9006
3CH 8BIT A/D
IC9003
TBL
IC9103
RC PRE PROCESSOR
IC9106
RC PROCESSOR
IC9201
PROCESSOR
4/7 YI-RC
4/7 VI-RC
4/7 UI-RC
VIN(A)
VIN(B)
VIN(C)
D(A)8
D(A)1
D(B)8
D(B)1
EXTCLP
XSYNC
CLK
DIY7
DIY0
DOY7
DOY0
DIC7
DIC0
CLP
ADHD
DOC7
DOC0
PAL
EXH
IVD
IRCK
IWCK
IH
WPLLHD
RPLL HD
1/7 50/60
4/7 VS-9141
4/7 HS-9141
IC9001
WRITEPLL
VCO OUT
FINA
FINB
IC9101
FIELD MEMORY
IC9102
FIELD MEMORY
DI0
DI7
DO0
DO7
WR ST
RRST
WCK
RCK
FD00
FD07
FD10
FD17
FD20
FD27
VCRO
RB00
RB07
FP
FPO
FPI
CKB
HREF
VBK
VBLK
XVD
IVD
HPLL
FV
FH
CK54
C13-9
IYU40
IYU47
IYU20
IYU27
IYU10
IYU17
IYJ00
IYJ07
IYD10
IYD17
IYD20
IYD27
IYD47
IYD40
IYPU7
IYPU0
IYPJ7
IYPJ-0
IYD7
IYD0
ICU27
ICU20
ICJ07
ICJ00
ICD27
ICD20
CK13
CK27
OY20
OY-29
OY10
OY19
OC20
OC29
OC10
OC19
INIT0
INIT8
RESET
IN1
UD20
UD29
UD10
UD19
UD40
UD49
UD30
UD39
IN10
IN18
RST
OCL
C27
C13
C54
FP
XCLH
XBK
RST0
VBLK
XVD
PAL
IC9105
CLK BUFF
IC9104
CLK BUFF
013M
027M
054M
50/60
IC9004
READ PLL
VCO LIM
Q9002
IC9005
PHASE SW
1B 2Q
H SYNC BUFF
Q9004
VCC DROP
Q9003
Q9001
3V REG
+5V
+3V
BIO
RIO
YIO
XV90
XH90
T2
BUFF
Q9201
Q9204
Q9202
Q9205
Q9203
Q9206
FL9201
FL9202
FL9203
IC9204
GAIN CONT
IN1 OUT1
IN2 OUT2
U-DRC
V-DRC
Y-DRC
IC9203
IC9202
VS-DRC
HS-DRC
BRMI

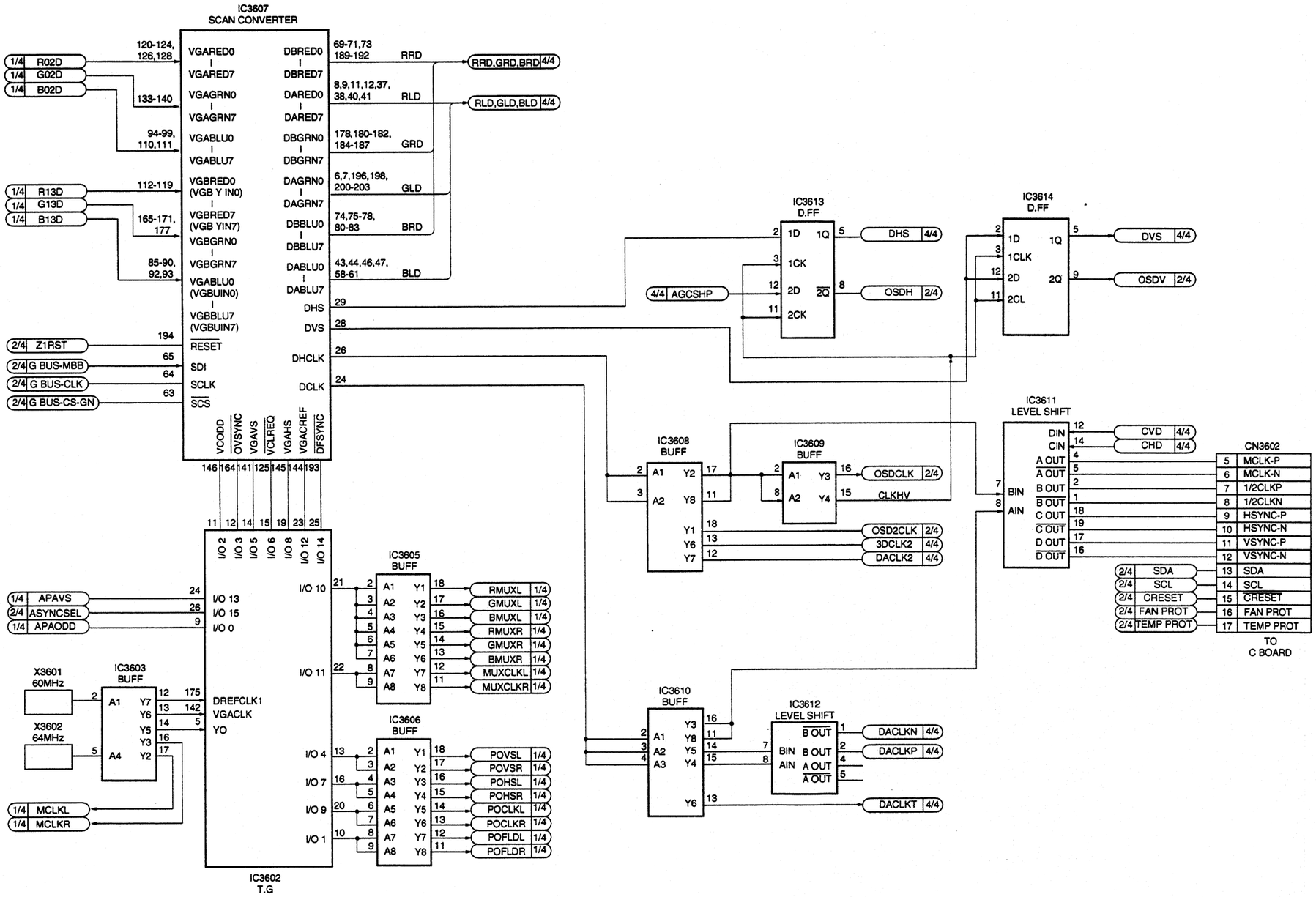
BA BLOCK (7/7)


CN3001
BLUE-B0+ A44
BLUE-B0– B44
BLUE-B1+ A45
BLUE-B1– B45
BLUE-B2+ A46
BLUE-B2– B46
BLUE-B3+ A47
BLUE-B3– B47
BLUE-B4+ A48
BLUE-B4– B48
BLUE-B5+ A49
BLUE-B5– B49
BLUE-B6+ A50
BLUE-B6– B50
BLUE-B7+ A51
BLUE-B7– B51
GREEN-B0+ A52
GREEN-B0– B52
GREEN-B1+ A53
GREEN-B1– B53
GREEN-B2+ A54
GREEN-B2– B54
GREEN-B3+ A55
GREEN-B3– B55
GREEN-B4+ A56
GREEN-B4– B56
GREEN-B5+ A57
GREEN-B5– B57
GREEN-B6+ A58
GREEN-B6– B58
GREEN-B7+ A59
GREEN-B7– B59
RED-B0+ A60
RED-B0– B60
RED-B1+ A61
RED-B1– B61
RED-B2+ A62
RED-B2– B62
RED-B3+ A63
RED-B3– B63
RED-B4+ A64
RED-B4– B64
RED-B5+ A65
RED-B5– B65
RED-B6+ A66
RED-B6– B66
RED-B7+ A67
RED-B7– B67
BD07
GD07
RD07
TO BA BOARD VIA BM BOARD
HS-BABB– B42
HS-BABB+ A42
AD- CLK– B43
AD CLK+ A43
ODD-EVEN– B40
ODD-EVEN+ A40
VS-BABB– B41
VS-BABB+ A41
IC3007,3101,3102
SERIAL/PARALLEL (R,G,B)
94,95,97,98,105,106,
108,109,114-117,122,
123,125,126
D0N
D1P
D7N
D7P
SEL 0
SEL 1
CLK N
CLK P
HDN
HDP
D0
D7
Q10
Q17
Q20
Q27
Q30
Q37
CLK0
HD0
2/4 PHASE 0 8
2/4 PHASE 1 9
CLKN 111
CLKP 112
HDN 119
HDP 120
14,15,17,18
21,22,24,25
27,28,30,31,
33,34,41,42
61,62,69,70,
72,73,75,76
78,79,81,82,
85,86,88,89
45
50
SMR0D
SMG0D
SMB0D
SMR1D
SMG1D
SMB1D
SMR2D
SMG2D
SMB2D
SMR3D
SMG3D
SMB3D
SMRCLK
SMGCLK
SMBCLK
SMB0D 2/4
SMB1D 2/4
SMB2D 2/4
SMB3D 2/4
IC3006
LEVEL SHIFT
IC3005
LEVEL SHIFT
A IN
B IN
A OUT
B OUT
2 HDN
3 HDP
6 CLKN
7 CLKP
APAODD 2/4,3/4
APAVS 2/4,3/4
APACLK 2/4
APAHS 2/4
IC3102 ONLY
IC3301,3401,3501
MEMORY CONTROLLER
PIE0-PID7
PIE8-PID15
73-80
81-88
P0D0
P0D15
MD0
MD31
DQM1
DQM0
CSO*
MA0
MA8
BA0
NWR*
RAS*
CAS*
POVS*
POHS*
POFLD
POCLK
SS
SCLK
SI
RST*
MCLK
PICLK
PIVS*
PIHS*
PIFLD*
98-102,105-108
110-115,118
144,1-7,10-17,
20-27,30-37,
50,51,52,53,
56-60,67
31-34,
47-50,29
66
69
70
92
94
95
96
3/4 POVSL 121
3/4 POHSL 122
3/4 POFLDL 123
3/4 POCLKL 125
2/4 SM-CS-L 130
2/4 SM-CLK-L 131
2/4 SM-DATA-L 132
2/4 C63RST 137
3/4 MCLKL 46
SMRCLK
SMGCLK
SMBCLK
2/4 SMRVS
2/4 SMGVS
2/4 SMBVS
2/4 SMRHS
2/4 SMGHS
2/4 SMBHS
2/4 SMRFLD
2/4 SMGFLD
2/4 SMBFLD
IC3303,3403,3503
MEMORY CONTROLLER
3/4 POVSR 121
3/4 POHSR 122
3/4 POFLDR 123
3/4 POCLKR 125
2/4 SM-CS-R 130
2/4 SM-CLK-R 131
2/4 SM-DATA-R 132
2/4 C63RST 137
3/4 MCLKR 46
IC3302,3402,3502
FRAME MEMORY
1,3,4,6,7,9,10,
12,13,17,18,20,
21,60,61,63,64,
68,69,71,72,74,
75,77,78,80,81,
83,84,97,98,100
DQ0
DQ31
DQM2
DQM3
DQM0
DQM1
CS
A0
A8
WW
WE
RAS
CAS
CLK
24
57
23
56
28
25
27
26
55
3/4 MCLKL
3/4 RMUXL
3/4 GMUXL
3/4 BMUXL
3/4 MCLKR
3/4 RMUXR
3/4 GMUXR
3/4 BMUXR
IC3305,3405,3505
SWITCH
IC3306,3406,3506
SWITCH
IC3307,3407,3507
SWITCH
IC3308,3408,3508
SWITCH
A/B
1A
1B
2A
2B
3A
3B
4A
4B
1Y
2Y
3Y
4Y
D02D0 2
D02D8 3
D02D1 5
D02D9 6
D02D2 11
D02D1010
D02D3 14
D02D1113
D02D4 2
D02D12 3
D02D5 5
D02D13 6
D02D6 11
D02D1410
D02D7 14
D02D1513
D13D0 2
D13D8 3
D13D1 5
D13D9 6
D13D2 11
D13D1010
132D3 14
D13D1113
D13D4 2
D13D12 3
D13D5 5
D13D13 6
D13D6 11
D13D1410
D13D7 14
D13D1513
4 D0
7 D1
9 D2
12 D3
4 D4
7 D5
9 D6
12 D7
12 37
IC3309,3409,3509
BUFF
IC3310,3410,3510
BUFF
D1
D8
Q1
Q8
2-9
R02D
G02D
B02D
R13D
G13D
B13D
R02D 3/4
G02D 3/4
B02D 3/4
MUXCLKL 3/4
R13D 3/4
G13D 3/4
B13D 3/4
MUXCLKR 3/4

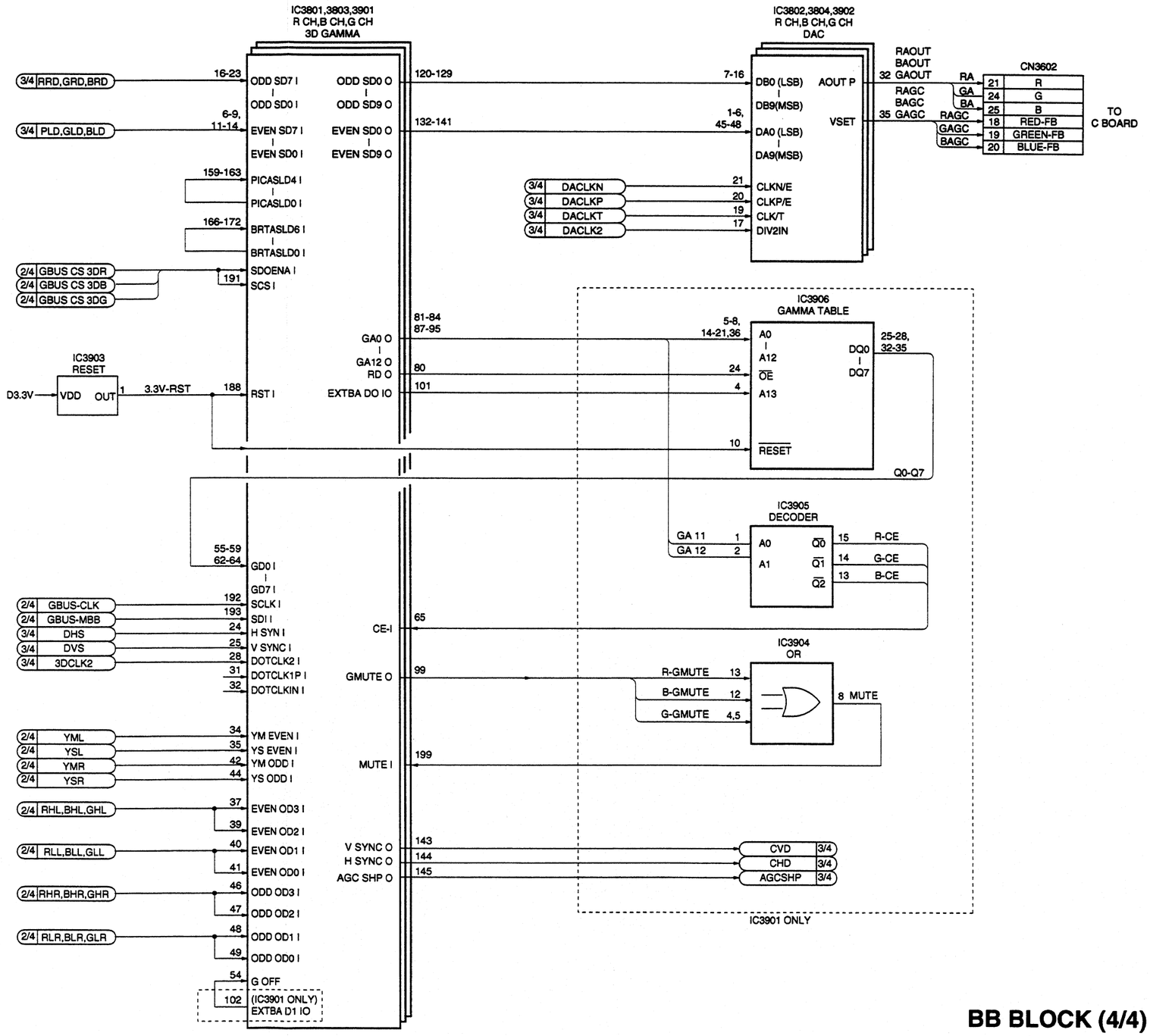
BB BLOCK (1/4)


CN3001
FAN PROT-C A2
TEMP-PROT-C B2
CRESET B2
SDA B4
SCL B5
RCLK B6
SM-CLK-R A6
SM-CLK-L A7
SM-DATA-R A8
SM-DATA-L A9
SM-CS-R A10
SM-CS-L A11
GBUS-CS-NC A12
GBUS-CS-APA A13
GBUS-CS-3DB A14
GBUS-CS-3DG A15
GBUS-CS-3DR A16
GBUS-CS-GN A17
GBUS-CLK A18
GBUS--MBB A20
V-TIM B7
H-TIM B8
GBUS-BBM A19
OSD-YM-R B9
OSD-YM-L B10
OSD-YS-R B11
OSD-YS-L B12
OSD-I-R B13
OSD-I-L B14
OSD-B-R B15
OSD-B-L B16
OSD-G-R B17
OSD-G-L B18
OSD-R-R B19
OSD-R-L B20
FAN PROT 3/4
TEMP PROT 3/4
CRESET 3/4
SDA 3/4
SCL 3/4
OSD 2CLK 3/4
OSDV 3/4
OSDH 3/4
TO M BOARD VIA BM BOARD
IC3001 BUFF
IC3002 BUFF
IC3012 BUFF
IC3003 BUFF
IC3004 BUFF
SM-CLK-R 1/4
SM-CLK-L 1/4
SM-DATA-R 1/4
SM-DATA-L 1/4
SM-CS-R 1/4
SM-CS-L 1/4
GBUS-CS-APA
GBUS-CS-3DB 4/4
GBUS-CS-3DG 4/4
GBUS-CS-3DR 4/4
GBUS-CS-GN 3/4
GBUS-CLK
GBUS-CS-MBB
GBUS-CS-CLK 3/4,4/4
GBUS-CS-MBB 3/4,4/4
GBUS-BBM
YMR
YML
YSR
YSL
IR
IL
BR
BL
GR
GL
RR
RL
3/4 OSD CLK
IC3008 AND
IC3009 AND
IC3010 BUFF
IC3011 BUFF
19-12
BHR,BLR, GHR,GLR, RHR,RLR, YMR,YSR
BHL,BLL, GHL,GLL, RHL,RLL, YML,YSL
RHR,BHR,GHR 4/4
RLR,BLR,GLR 4/4
YSR 4/4
YSR 4/4
RHL,BHL,GHL 4/4
RLL,BLL,GLL 4/4
YML 4/4
YSL 4/4
IC3201 APA
SMB OD 1/4
SMB 1D 1/4
SMB 2D 1/4
SMB 3D 1/4
APACLK 1/4
APAVS 1/4
APAHS 1/4
APAODD 1/4
11,13-19
3-10
53-60
43-50
DIN10 DIN17 DIN20 DIN27 DIN30 DIN37 DIN40 DIN47
CLK
VDX
HDXIN
FLDIN
SCSIN
SCLK
SDI IN
SDO OUT
HDXOUT
FLDOUT
OUT0 OUT1 OUT2 OUT3 OUT4 OUT5
PHASE 0 1/4
PHASE 1 1/4
C63RST 1/4
Z1RST 3/4
ASYNCSEL 3/4
IC3202 T.G
YO
I/O0
I/O1
I/O2
I/O12
I/O13
I/O11
IC3203 BUFF
SMRFLD 1/4
SMGFLD 1/4
SMBFLD 1/4
SMRHS 1/4
SMGHS 1/4
SMBHS 1/4
IC3204 BUFF
SMR VS 1/4
SMG VS 1/4
SMB VS 1/4

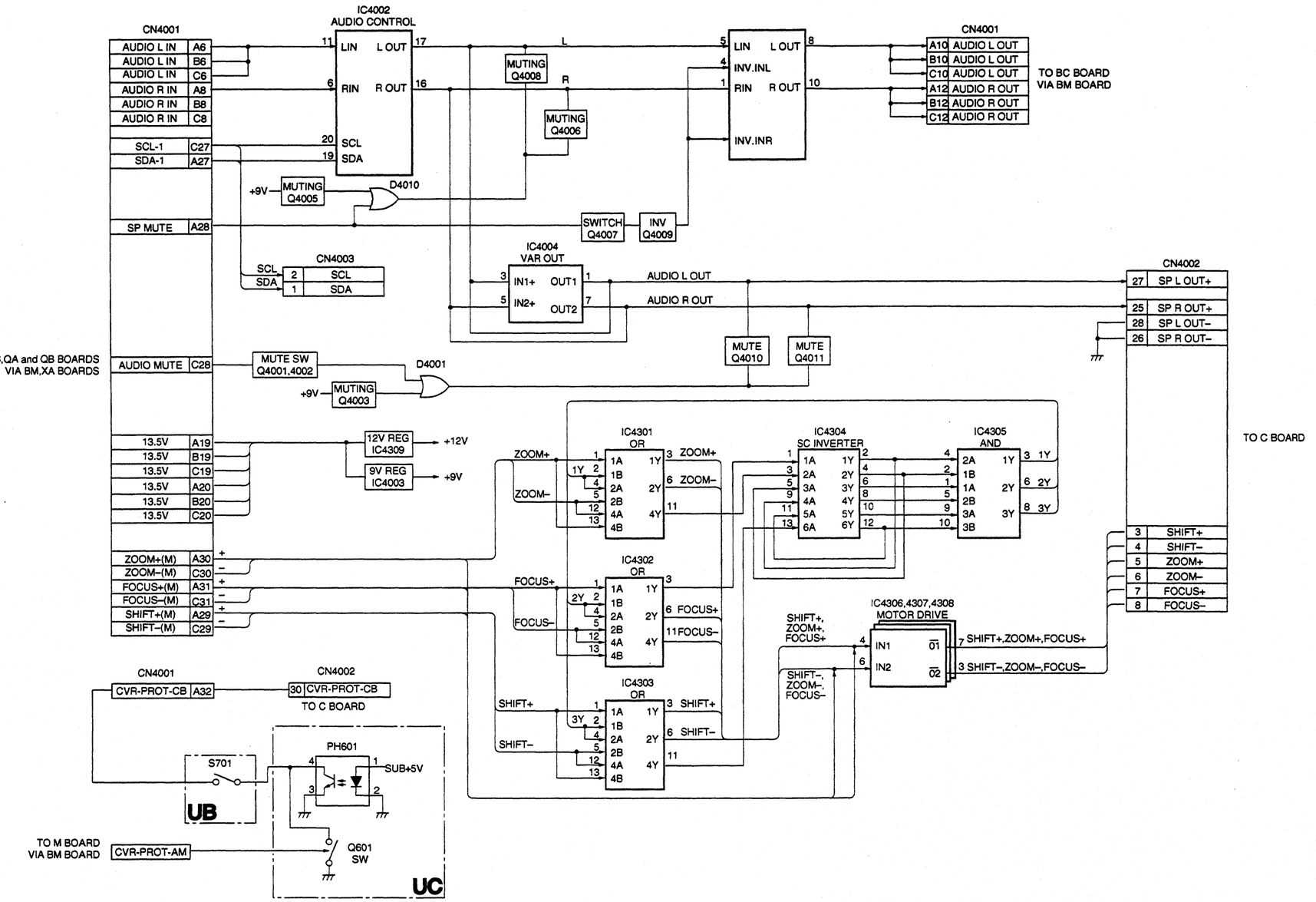
BB BLOCK (2/4)


IC3607
SCAN CONVERTER
1/4 R02D
1/4 G02D
1/4 B02D
120-124, 126,128
133-140
94-99, 110,111
1/4 R13D
1/4 G13D
1/4 B13D
112-119
165-171, 177
85-90, 92,93
VGARED0
VGARED7
VGAGRN0
VGAGRN7
VGABLU0
VGABLU7
VGBRED0 (VGB Y IN0)
VGBRED7 (VGB YIN7)
VGBGRN0
VGBGRN7
VGABLU0 (VGBUIN0)
VGBBLU7 (VGBUIN7)
2/4 Z1RST
194
RESET
2/4 G BUS-MBB
65
SDI
2/4 G BUS-CLK
64
SCLK
2/4 G BUS-CS-GN
63
SCS
DBRED0
DBRED7
DARED0
DARED7
DBGRN0
DBGRN7
DAGRN0
DAGRN7
DBBLU0
DBBLU7
DABLU0
DABLU7
DHS
DVS
DHCLK
DCLK
69-71,73 189-192
RRD
8,9,11,12,37, 38,40,41
RLD
178,180-182, 184-187
GRD
6,7,196,198, 200-203
GLD
74,75-78, 80-83
BRD
43,44,46,47, 58-61
BLD
29
28
26
24
RRD,GRD,BRD 4/4
RLD,GLD,BLD 4/4
VCODD
OVSYNC
VGAVS
VCLREQ
VGAHS
VGACREF
DFSYNC
146 164 141 125 145 144 193
11 12 14 15 19 23 25
I/O 2
I/O 3
I/O 5
I/O 6
I/O 8
I/O 12
I/O 14
1/4 APAVS
2/4 ASYNCSEL
1/4 APAODD
24
26
9
I/O 13
I/O 15
I/O 0
X3601 60MHz
X3602 64MHz
IC3603 BUFF
DREFCLK1
VGACLK
YO
1/4 MCLKL
1/4 MCLKR
IC3602 T.G
IC3605 BUFF
IC3606 BUFF
I/O 10
I/O 11
I/O 4
I/O 7
I/O 9
I/O 1
RMUXL 1/4
GMUXL 1/4
BMUXL 1/4
RMUXR 1/4
GMUXR 1/4
BMUXR 1/4
MUXCLKL 1/4
MUXCLKR 1/4
POVSL 1/4
POVSR 1/4
POHSL 1/4
POHSR 1/4
POCLKL 1/4
POCLKR 1/4
POFLDL 1/4
POFLDR 1/4
IC3613 D.FF
4/4 AGCSHP
DHS 4/4
OSDH 2/4
IC3614 D.FF
DVS 4/4
OSDV 2/4
IC3608 BUFF
IC3609 BUFF
OSDCLK 2/4
CLKHV
OSD2CLK 2/4
3DCLK2 4/4
DACLK2 4/4
IC3610 BUFF
IC3612 LEVEL SHIFT
DACLKN 4/4
DACLKP 4/4
DACLKT 4/4
IC3611 LEVEL SHIFT
CVD 4/4
CHD 4/4
CN3602
MCLK-P
MCLK-N
1/2CLKP
1/2CLKN
HSYNC-P
HSYNC-N
VSYNC-P
VSYNC-N
SDA
SCL
CRESET
FAN PROT
TEMP PROT
TO C BOARD

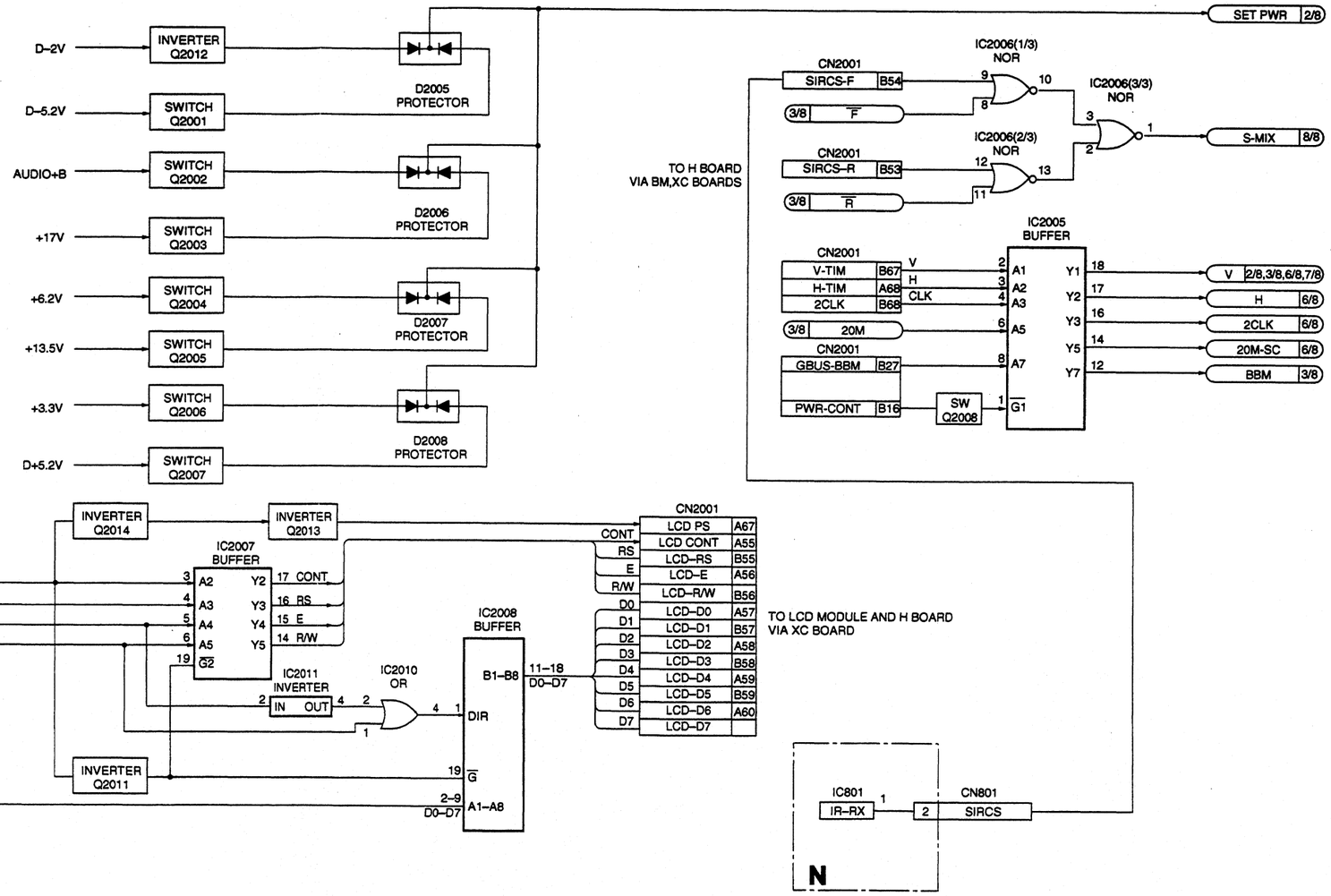
BB BLOCK (3/4)


IC3801,3803,3901
R CH,B CH,G CH
3D GAMMA
IC3802,3804,3902
R CH,B CH,G CH
DAC
CN3602
TO C BOARD
3/4 RRD,GRD,BRD
3/4 PLD,GLD,BLD
2/4 GBUS CS 3DR
2/4 GBUS CS 3DB
2/4 GBUS CS 3DG
ODD SD7 I
ODD SD0 I
EVEN SD7 I
EVEN SD0 I
PICASLD4 I
PICASLD0 I
BRTASLD6 I
BRTASLD0 I
SDOENA I
SCS I
ODD SD0 O
ODD SD9 O
EVEN SD0 O
EVEN SD9 O
GA0 O
GA12 O
RD O
EXTBA DO IO
DB0 (LSB)
DB9(MSB)
DA0 (LSB)
DA9(MSB)
AOUT P
VSET
RAOUT
BAOUT
GAOUT
RAGC
BAGC
GAGC
RA
GA
BA
R
G
B
RED-FB
GREEN-FB
BLUE-FB
3/4 DACLKN
3/4 DACLKP
3/4 DACLKT
3/4 DACLK2
CLKN/E
CLKP/E
CLK/T
DIV2IN
IC3903
RESET
D3.3V
VDD
OUT
3.3V-RST
RST I
IC3906
GAMMA TABLE
A0
A12
OE
A13
RESET
DQ0
DQ7
Q0-Q7
IC3905
DECODER
GA 11
GA 12
A0
A1
Q0
Q1
Q2
R-CE
G-CE
B-CE
IC3904
OR
R-GMUTE
B-GMUTE
G-GMUTE
MUTE
GBUS-CLK
GBUS-MBB
DHS
DVS
3DCLK2
SCLK I
SDI I
H SYN I
V SYNC I
DOTCLK2 I
DOTCLK1P I
DOTCLKIN I
GD0 I
GD7 I
(IC3901 ONLY)
EXTBA D1 IO
CE-I
GMUTE O
MUTE I
V SYNC O
H SYNC O
AGC SHP O
YML
YSL
YMR
YSR
YM EVEN I
YS EVEN I
YM ODD I
YS ODD I
RHL,BHL,GHL
RLL,BLL,GLL
RHR,BHR,GHR
RLR,BLR,GLR
EVEN OD3 I
EVEN OD2 I
EVEN OD1 I
EVEN OD0 I
ODD OD3 I
ODD OD2 I
ODD OD1 I
ODD OD0 I
G OFF
CVD
CHD
AGCSHP
IC3901 ONLY

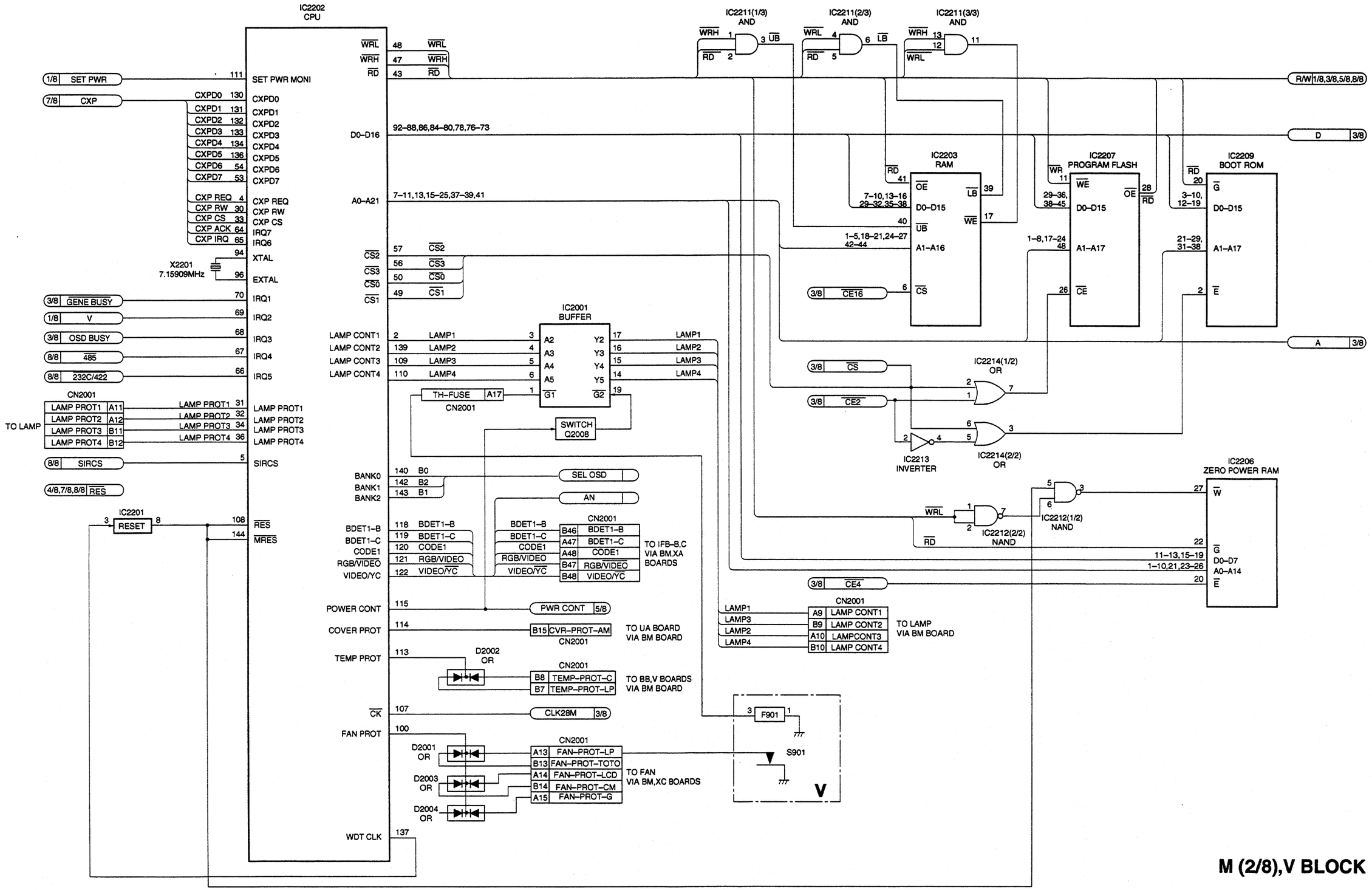
BB BLOCK (4/4)



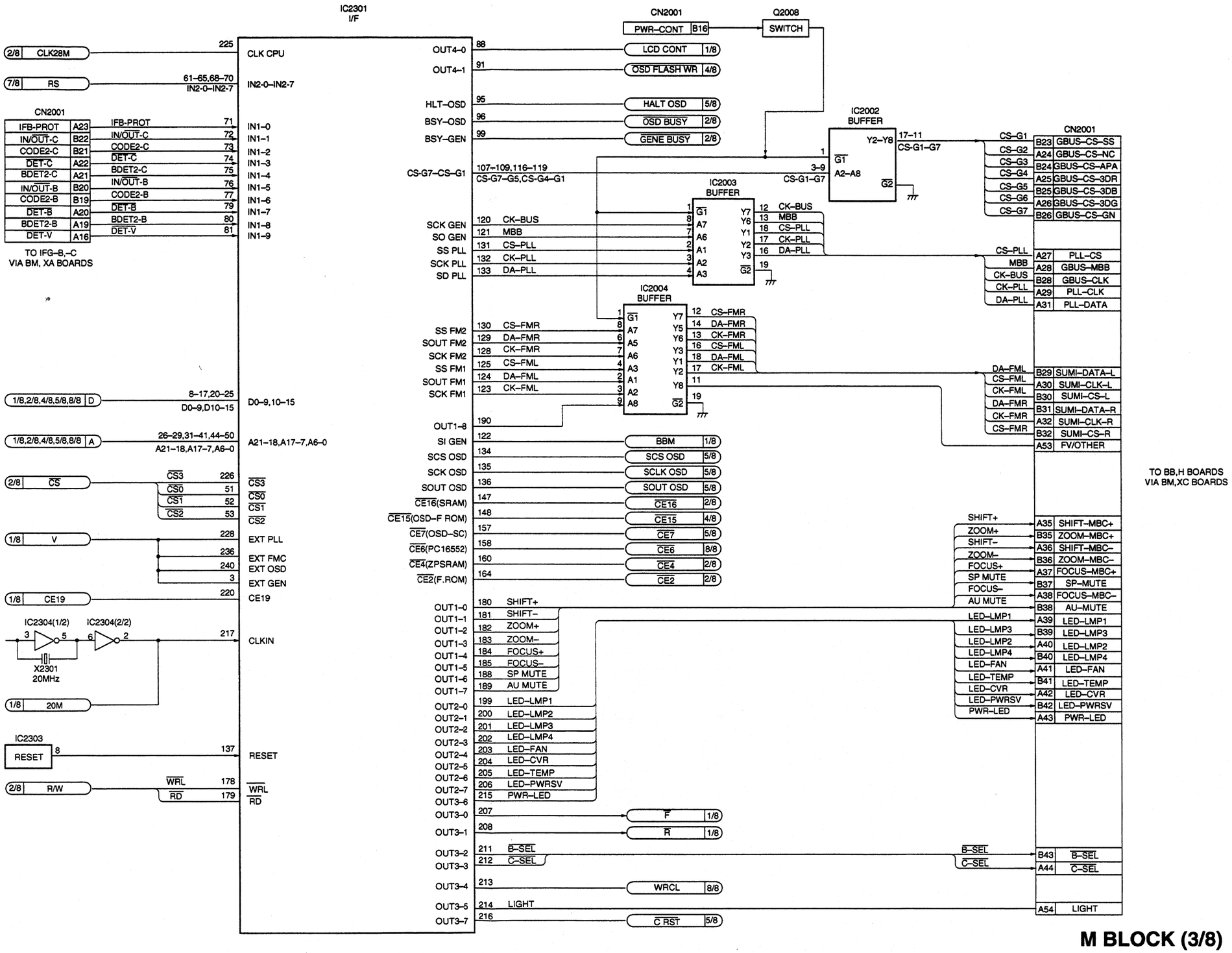
BC, UB, UC BLOCK


D–2V
INVERTER Q2012
D–5.2V
SWITCH Q2001
AUDIO+B
SWITCH Q2002
+17V
SWITCH Q2003
+6.2V
SWITCH Q2004
+13.5V
SWITCH Q2005
+3.3V
SWITCH Q2006
D+5.2V
SWITCH Q2007
D2005 PROTECTOR
D2006 PROTECTOR
D2007 PROTECTOR
D2008 PROTECTOR
SET PWR 2/8
TO H BOARD VIA BM,XC BOARDS
CN2001
SIRCS-F B54
3/8 F
SIRCS-R B53
3/8 R
IC2006(1/3) NOR
IC2006(2/3) NOR
IC2006(3/3) NOR
S-MIX 8/8
IC2005 BUFFER
V-TIM B67
H-TIM A68
2CLK B68
3/8 20M
GBUS-BBM B27
PWR-CONT B16
SW Q2008
V 2/8,3/8,6/8,7/8
H 6/8
2CLK 6/8
20M-SC 6/8
BBM 3/8
INVERTER Q2014
INVERTER Q2013
IC2007 BUFFER
3/8 LCD CONT
3/8 A
3/8 CE19
2/8 R/W
CONT
RS
E
R/W
IC2011 INVERTER
IC2010 OR
IC2008 BUFFER
B1–B8
DIR
D0–D7
INVERTER Q2011
3/8 D
CN2001
LCD PS A67
LCD CONT A55
LCD–RS B55
LCD–E A56
LCD–R/W B56
LCD–D0 A57
LCD–D1 B57
LCD–D2 A58
LCD–D3 B58
LCD–D4 A59
LCD–D5 B59
LCD–D6 A60
LCD–D7
TO LCD MODULE AND H BOARD VIA XC BOARD
IC801 IR–RX
CN801 SIRCS
N

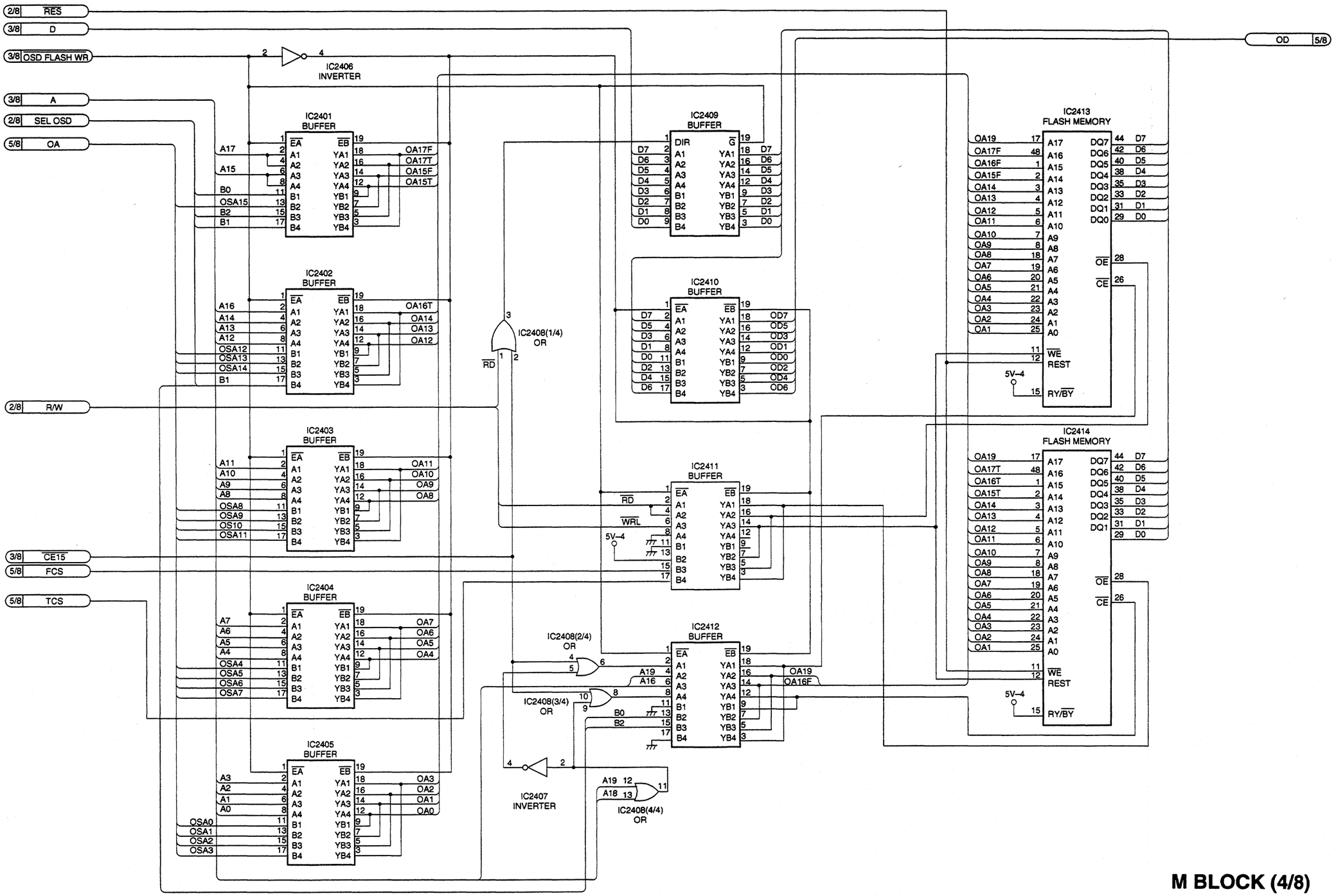
M (1/8), N BLOCK


IC2202
CPU
SET PWR MONI
CXPD0
CXPD1
CXPD2
CXPD3
CXPD4
CXPD5
CXPD6
CXPD7
CXP REQ
CXP RW
CXP CS
CXP ACK
IRQ7
IRQ6
XTAL
EXTAL
IRQ1
IRQ2
IRQ3
IRQ4
IRQ5
LAMP PROT1
LAMP PROT2
LAMP PROT3
LAMP PROT4
SIRCS
RES
MRES
WRL
WRH
RD
D0–D16
A0–A21
CS2
CS3
CS0
CS1
LAMP CONT1
LAMP CONT2
LAMP CONT3
LAMP CONT4
BANK0
BANK1
BANK2
BDET1–B
BDET1–C
CODE1
RGB/VIDEO
VIDEO/YC
POWER CONT
COVER PROT
TEMP PROT
CK
FAN PROT
WDT CLK
1/8 SET PWR
7/8 CXP
X2201
7.15909MHz
3/8 GENE BUSY
1/8 V
3/8 OSD BUSY
8/8 485
8/8 232C/422
CN2001
TO LAMP
8/8 SIRCS
4/8,7/8,8/8 RES
IC2201
RESET
IC2001
BUFFER
TH–FUSE A17
SWITCH
Q2008
SEL OSD
AN
PWR CONT 5/8
B15 CVR–PROT–AM
D2002
OR
B8 TEMP–PROT–C
B7 TEMP–PROT–LP
TO UA BOARD
VIA BM BOARD
TO BB,V BOARDS
VIA BM BOARD
CLK28M 3/8
D2001
OR
D2003
OR
D2004
OR
A13 FAN–PROT–LP
B13 FAN–PROT–TOTO
A14 FAN–PROT–LCD
B14 FAN–PROT–CM
A15 FAN–PROT–G
TO FAN
VIA BM,XC BOARDS
F901
S901
V
IC2211(1/3)
AND
IC2211(2/3)
AND
IC2211(3/3)
AND
R/W 1/8,3/8,5/8,8/8
D 3/8
A 3/8
IC2203
RAM
IC2207
PROGRAM FLASH
IC2209
BOOT ROM
D0–D15
A1–A16
A1–A17
3/8 CE16
IC2214(1/2)
OR
IC2214(2/2)
OR
IC2213
INVERTER
3/8 CS
3/8 CE2
IC2212(1/2)
NAND
IC2212(2/2)
NAND
IC2206
ZERO POWER RAM
D0–D7
A0–A14
3/8 CE4
TO LAMP
VIA BM BOARD

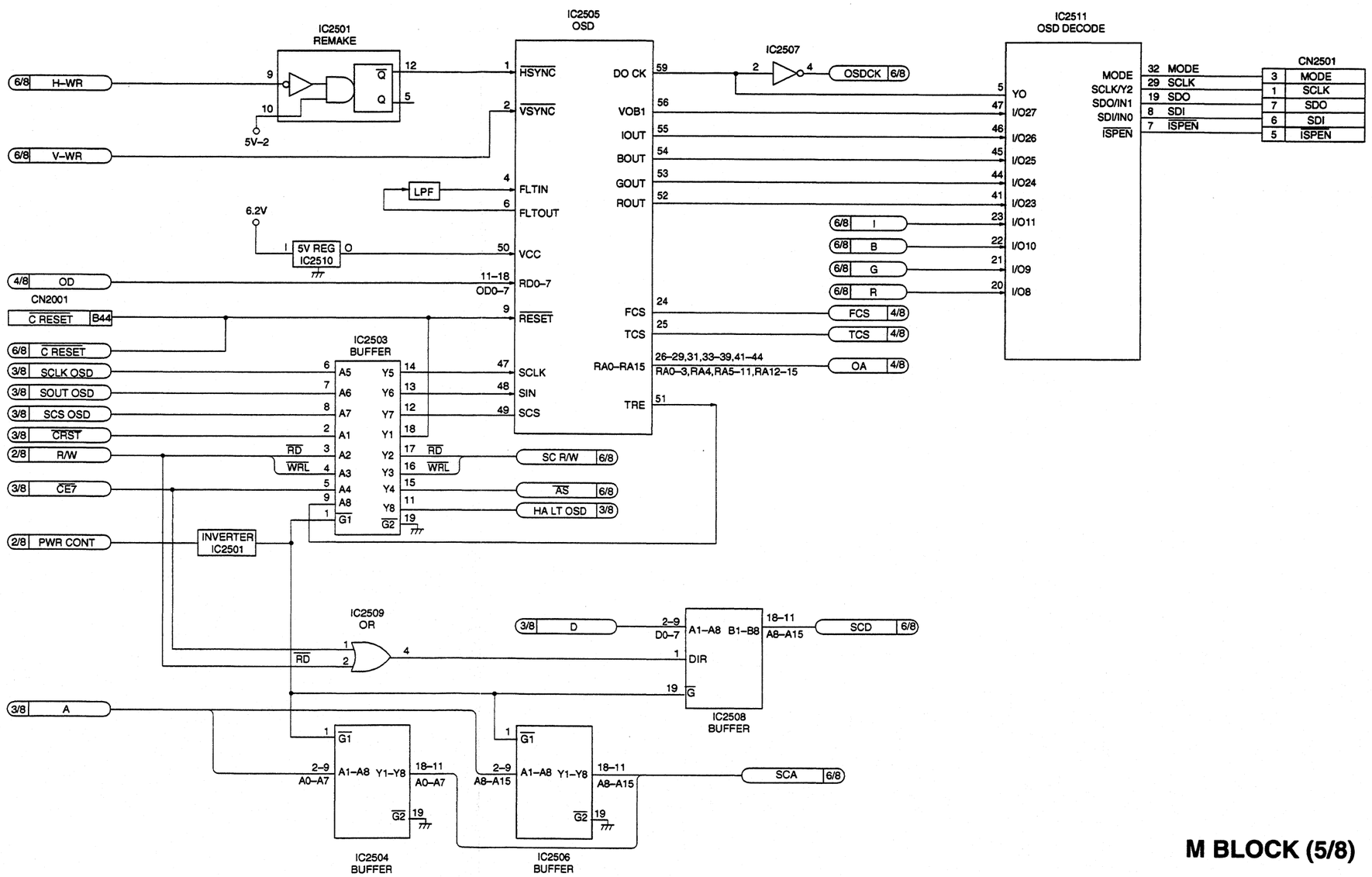
M (2/8),V BLOCK


IC2301
I/F
CLK CPU
IN2-0–IN2-7
D0–9,10–15
A21–18,A17–7,A6–0
EXT PLL
EXT FMC
EXT OSD
EXT GEN
CE19
CLKIN
RESET
WRL
RD
2/8 CLK28M
7/8 RS
CN2001
IFB-PROT A23
IN/OUT-C B22
CODE2-C B21
DET-C A22
BDET2-C A21
IN/OUT-B B20
CODE2-B B19
DET-B A20
BDET2-B A19
DET-V A16
TO IFG–B,–C
VIA BM, XA BOARDS
1/8,2/8,4/8,5/8,8/8 D
1/8,2/8,4/8,5/8,8/8 A
2/8 CS
1/8 V
1/8 CE19
IC2304(1/2)
IC2304(2/2)
X2301
20MHz
1/8 20M
IC2303
RESET
2/8 R/W
OUT4–0
OUT4–1
HLT–OSD
BSY–OSD
BSY–GEN
CS-G7–CS–G1
SCK GEN
SO GEN
SS PLL
SCK PLL
SD PLL
SS FM2
SOUT FM2
SCK FM2
SS FM1
SOUT FM1
SCK FM1
OUT1–8
SI GEN
SCS OSD
SCK OSD
SOUT OSD
CE16(SRAM)
CE15(OSD–F ROM)
CE7(OSD–SC)
CE6(PC16552)
CE4(ZPSRAM)
CE2(F.ROM)
OUT1–0
OUT1–1
OUT1–2
OUT1–3
OUT1–4
OUT1–5
OUT1–6
OUT1–7
OUT2–0
OUT2–1
OUT2–2
OUT2–3
OUT2–4
OUT2–5
OUT2–6
OUT2–7
OUT3–6
OUT3–0
OUT3–1
OUT3–2
OUT3–3
OUT3–4
OUT3–5
OUT3–7
CN2001
PWR–CONT B16
LCD CONT 1/8
OSD FLASH WR 4/8
HALT OSD 5/8
OSD BUSY 2/8
GENE BUSY 2/8
Q2008
SWITCH
IC2002
BUFFER
IC2003
BUFFER
IC2004
BUFFER
CK–BUS
MBB
CS–PLL
CK–PLL
DA–PLL
CS–FMR
DA–FMR
CK–FMR
CS–FML
DA–FML
CK–FML
BBM 1/8
SCS OSD 5/8
SCLK OSD 5/8
SOUT OSD 5/8
CE16 2/8
CE15 4/8
CE7 5/8
CE6 8/8
CE4 2/8
CE2 2/8
SHIFT+
SHIFT–
ZOOM+
ZOOM–
FOCUS+
FOCUS–
SP MUTE
AU MUTE
LED–LMP1
LED–LMP2
LED–LMP3
LED–LMP4
LED–FAN
LED–TEMP
LED–CVR
LED–PWRSV
PWR–LED
F 1/8
R 1/8
B–SEL
C–SEL
WRCL 8/8
LIGHT
C RST 5/8
CN2001
CS–G1 B23 GBUS–CS–SS
CS–G2 A24 GBUS–CS–NC
CS–G3 B24 GBUS–CS–APA
CS–G4 A25 GBUS–CS–3DR
CS–G5 B25 GBUS–CS–3DB
CS–G6 A26 GBUS–CS–3DG
CS–G7 B26 GBUS–CS–GN
CS–PLL A27 PLL–CS
MBB A28 GBUS–MBB
CK–BUS B28 GBUS–CLK
CK–PLL A29 PLL–CLK
DA–PLL A31 PLL–DATA
DA–FML B29 SUMI–DATA–L
CS–FML A30 SUMI–CLK–L
CK–FML B30 SUMI–CS–L
DA–FMR B31 SUMI–DATA–R
CK–FMR A32 SUMI–CLK–R
CS–FMR B32 SUMI–CS–R
A53 FV/OTHER
A35 SHIFT–MBC+
B35 ZOOM–MBC+
A36 SHIFT–MBC–
B36 ZOOM–MBC–
A37 FOCUS–MBC+
B37 SP–MUTE
A38 FOCUS–MBC–
B38 AU–MUTE
A39 LED–LMP1
B39 LED–LMP3
A40 LED–LMP2
B40 LED–LMP4
A41 LED–FAN
B41 LED–TEMP
A42 LED–CVR
B42 LED–PWRSV
A43 PWR–LED
B43 B–SEL
A44 C–SEL
A54 LIGHT
TO BB,H BOARDS
VIA BM,XC BOARDS

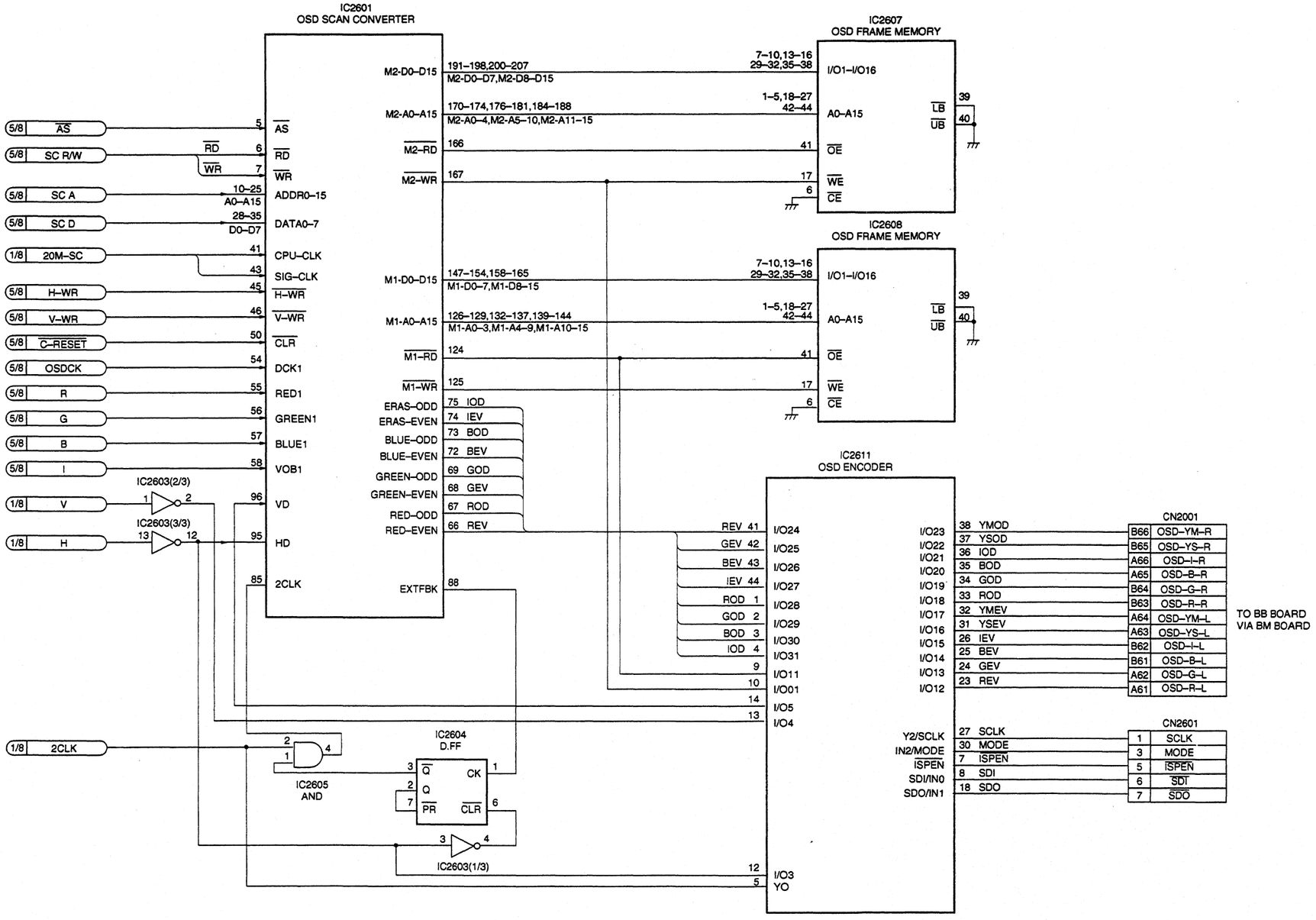
M BLOCK (3/8)


2/8 RES
3/8 D
3/8 OSD FLASH WR
3/8 A
2/8 SEL OSD
5/8 OA
2/8 R/W
3/8 CE15
5/8 FCS
5/8 TCS
OD 5/8
IC2406 INVERTER
IC2401 BUFFER
IC2402 BUFFER
IC2403 BUFFER
IC2404 BUFFER
IC2405 BUFFER
IC2407 INVERTER
IC2408(1/4) OR
IC2408(2/4) OR
IC2408(3/4) OR
IC2408(4/4) OR
IC2409 BUFFER
IC2410 BUFFER
IC2411 BUFFER
IC2412 BUFFER
IC2413 FLASH MEMORY
IC2414 FLASH MEMORY
5V–4
RD
WRL
WE
REST
RY/BY
OE
CE

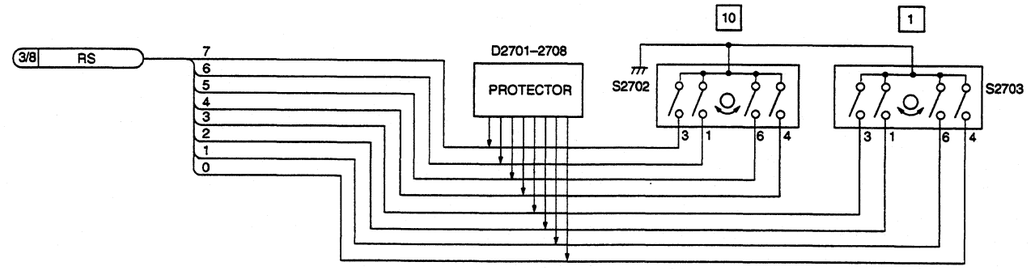
M BLOCK (4/8)

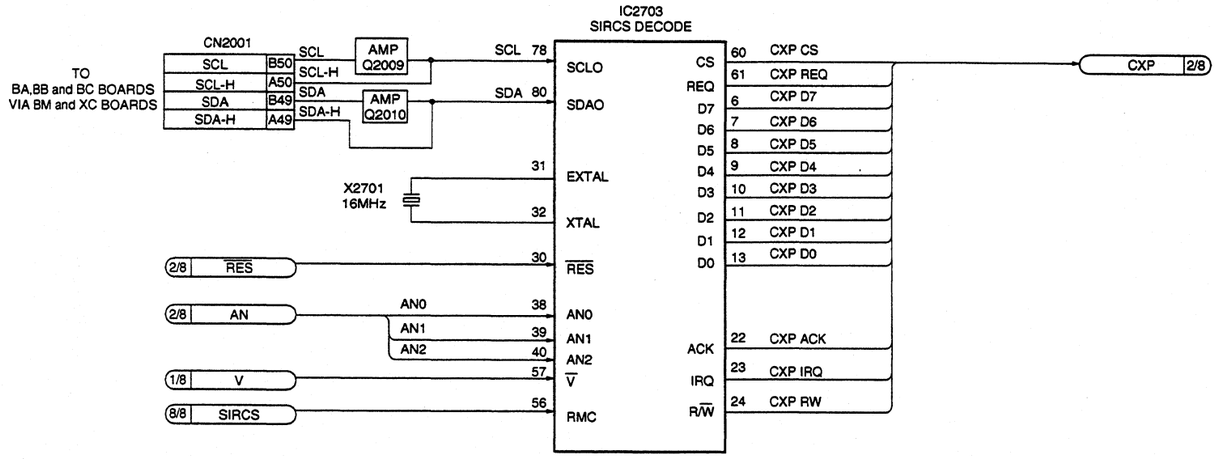

IC2501
REMAKE
IC2505
OSD
IC2511
OSD DECODE
IC2507
CN2501
6/8 H-WR
6/8 V-WR
5V-2
HSYNC
VSYNC
LPF
FLTIN
FLTOUT
6.2V
5V REG
IC2510
VCC
4/8 OD
RD0-7
OD0-7
CN2001
C RESET B44
RESET
6/8 C RESET
IC2503
BUFFER
3/8 SCLK OSD
3/8 SOUT OSD
3/8 SCS OSD
3/8 CRST
2/8 R/W
3/8 CE7
SCLK
SIN
SCS
SC R/W 6/8
AS 6/8
HA LT OSD 3/8
2/8 PWR CONT
INVERTER
IC2501
DO CK
VOB1
IOUT
BOUT
GOUT
ROUT
FCS
TCS
RA0-RA15
TRE
OSDCK 6/8
FCS 4/8
TCS 4/8
OA 4/8
6/8 I
6/8 B
6/8 G
6/8 R
YO
I/O27
I/O26
I/O25
I/O24
I/O23
I/O11
I/O10
I/O9
I/O8
MODE
SCLK/Y2
SDO/IN1
SDI/IN0
ISPEN
32 MODE
29 SCLK
19 SDO
8 SDI
7 ISPEN
3 MODE
1 SCLK
7 SDO
6 SDI
5 ISPEN
IC2509
OR
3/8 D
D0-7
A1-A8 B1-B8
A8-A15
SCD 6/8
DIR
G
IC2508
BUFFER
3/8 A
G1
A0-A7
A1-A8 Y1-Y8
G2
IC2504
BUFFER
IC2506
BUFFER
SCA 6/8

M BLOCK (5/8)

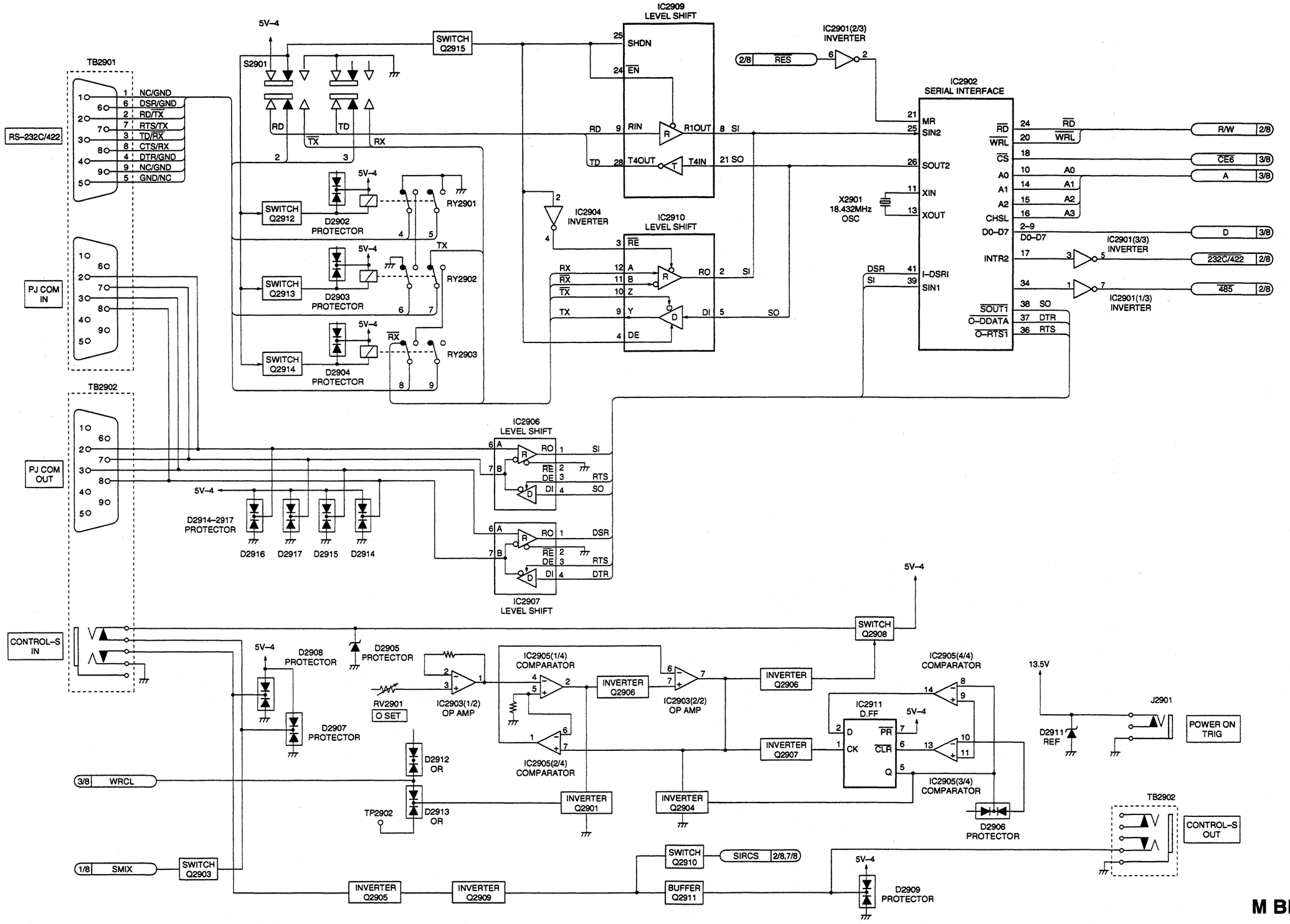

IC2601
OSD SCAN CONVERTER
IC2607
OSD FRAME MEMORY
IC2608
OSD FRAME MEMORY
IC2611
OSD ENCODER
IC2603(2/3)
IC2603(3/3)
IC2603(1/3)
IC2604
D.FF
IC2605
AND
5/8 AS
5/8 SC R/W
5/8 SC A
5/8 SC D
1/8 20M-SC
5/8 H-WR
5/8 V-WR
5/8 C-RESET
5/8 OSDCK
5/8 R
5/8 G
5/8 B
5/8 I
1/8 V
1/8 H
1/8 2CLK
AS
RD
WR
ADDR0-15
A0-A15
DATA0-7
D0-D7
CPU-CLK
SIG-CLK
H-WR
V-WR
CLR
DCK1
RED1
GREEN1
BLUE1
VOB1
VD
HD
2CLK
EXTFBK
M2-D0-D15
M2-A0-A15
M2-RD
M2-WR
M1-D0-D15
M1-A0-A15
M1-RD
M1-WR
ERAS-ODD
ERAS-EVEN
BLUE-ODD
BLUE-EVEN
GREEN-ODD
GREEN-EVEN
RED-ODD
RED-EVEN
191-198,200-207
M2-D0-D7,M2-D8-D15
170-174,176-181,184-188
M2-A0-4,M2-A5-10,M2-A11-15
166
167
147-154,158-165
M1-D0-7,M1-D8-15
126-129,132-137,139-144
M1-A0-3,M1-A4-9,M1-A10-15
124
125
75 IOD
74 IEV
73 BOD
72 BEV
69 GOD
68 GEV
67 ROD
66 REV
7-10,13-16
29-32,35-38
I/O1-I/O16
1-5,18-27
42-44
A0-A15
LB
UB
OE
WE
CE
REV 41
GEV 42
BEV 43
IEV 44
ROD 1
GOD 2
BOD 3
IOD 4
I/O24
I/O25
I/O26
I/O27
I/O28
I/O29
I/O30
I/O31
I/O11
I/O01
I/O5
I/O4
I/O3
YO
I/O23
I/O22
I/O21
I/O20
I/O19
I/O18
I/O17
I/O16
I/O15
I/O14
I/O13
I/O12
Y2/SCLK
IN2/MODE
ISPEN
SDI/IN0
SDO/IN1
38 YMOD
37 YSOD
36 IOD
35 BOD
34 GOD
33 ROD
32 YMEV
31 YSEV
26 IEV
25 BEV
24 GEV
23 REV
27 SCLK
30 MODE
7 ISPEN
8 SDI
18 SDO
CN2001
B66 OSD-YM-R
B65 OSD-YS-R
A66 OSD-I-R
A65 OSD-B-R
B64 OSD-G-R
B63 OSD-R-R
A64 OSD-YM-L
A63 OSD-YS-L
B62 OSD-I-L
B61 OSD-B-L
A62 OSD-G-L
A61 OSD-R-L
TO BB BOARD
VIA BM BOARD
CN2601
1 SCLK
3 MODE
5 ISPEN
6 SDI
7 SDO

M BLOCK (6/8)


3/8
RS
7
6
5
4
3
2
1
0
D2701–2708
PROTECTOR
10
1
S2702
S2703
3
1
6
4
3
1
6
4

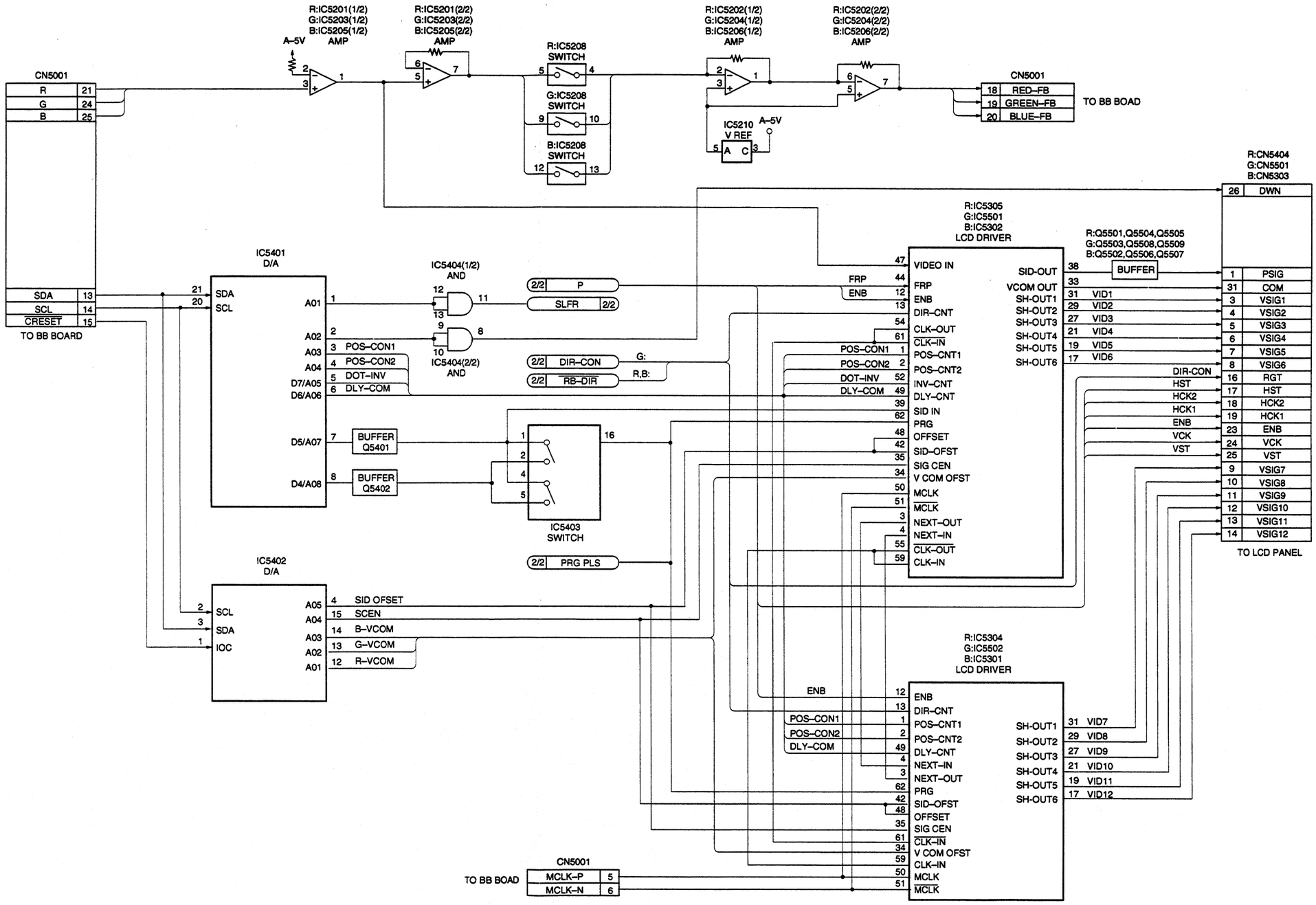

IC2703
SIRCS DECODE
CN2001
TO
BA,BB and BC BOARDS
VIA BM and XC BOARDS
SCL
SCL-H
SDA
SDA-H
B50
A50
B49
A49
AMP
Q2009
AMP
Q2010
SCL 78
SDA 80
SCLO
SDAO
31
EXTAL
X2701
16MHz
32
XTAL
2/8
RES
30
RES
2/8
AN
AN0
AN1
AN2
38
39
40
AN0
AN1
AN2
1/8
V
57
V
8/8
SIRCS
56
RMC
CS
REQ
D7
D6
D5
D4
D3
D2
D1
D0
ACK
IRQ
R/W
60
61
6
7
8
9
10
11
12
13
22
23
24
CXP CS
CXP REQ
CXP D7
CXP D6
CXP D5
CXP D4
CXP D3
CXP D2
CXP D1
CXP D0
CXP ACK
CXP IRQ
CXP RW
CXP
2/8

M BLOCK (7/8)

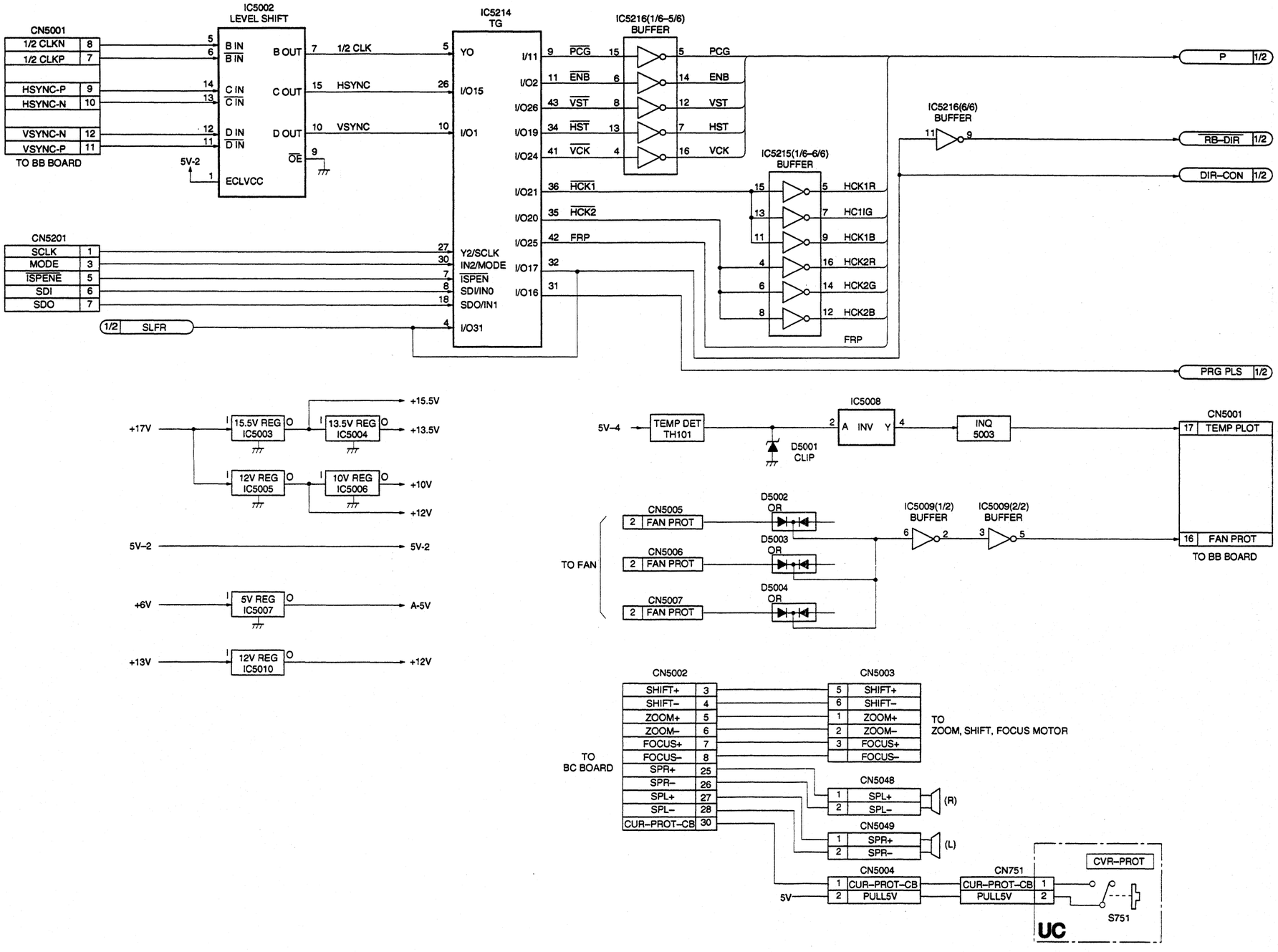


8-23 8-23

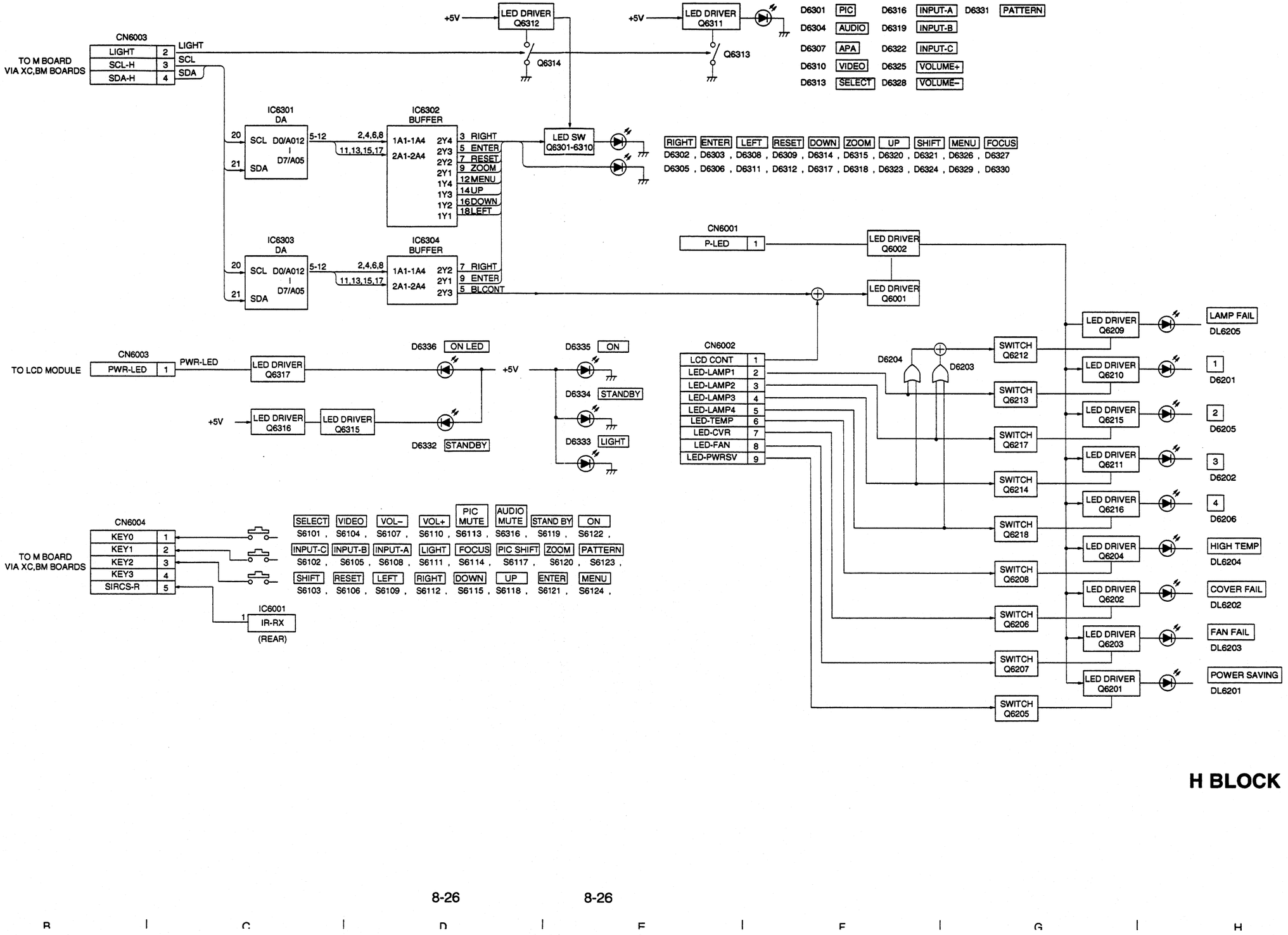
M BLOCK (8/8)


R:IC5201(1/2)
G:IC5203(1/2)
B:IC5205(1/2)
AMP
R:IC5201(2/2)
G:IC5203(2/2)
B:IC5205(2/2)
AMP
A–5V
R:IC5208
SWITCH
G:IC5208
SWITCH
B:IC5208
SWITCH
R:IC5202(1/2)
G:IC5204(1/2)
B:IC5206(1/2)
AMP
R:IC5202(2/2)
G:IC5204(2/2)
B:IC5206(2/2)
AMP
IC5210
V REF
A–5V
CN5001
R 21
G 24
B 25
SDA 13
SCL 14
CRESET 15
TO BB BOARD
CN5001
18 RED–FB
19 GREEN–FB
20 BLUE–FB
TO BB BOAD
IC5401
D/A
SDA
SCL
A01
A02
A03
A04
D7/A05
D6/A06
D5/A07
D4/A08
BUFFER Q5401
BUFFER Q5402
IC5404(1/2)
AND
IC5404(2/2)
AND
2/2 P
SLFR 2/2
2/2 DIR–CON
2/2 RB–DIR
G:
R,B:
POS–CON1
POS–CON2
DOT–INV
DLY–COM
IC5403
SWITCH
IC5402
D/A
SCL
SDA
IOC
A05 SID OFSET
A04 SCEN
A03 B–VCOM
A02 G–VCOM
A01 R–VCOM
2/2 PRG PLS
R:IC5305
G:IC5501
B:IC5302
LCD DRIVER
VIDEO IN
FRP
ENB
DIR–CNT
CLK–OUT
CLK–IN
POS–CNT1
POS–CNT2
INV–CNT
DLY–CNT
SID IN
PRG
OFFSET
SID–OFST
SIG CEN
V COM OFST
MCLK
MCLK
NEXT–OUT
NEXT–IN
CLK–OUT
CLK–IN
SID-OUT
VCOM OUT
SH-OUT1
SH-OUT2
SH-OUT3
SH-OUT4
SH-OUT5
SH-OUT6
R:Q5501,Q5504,Q5505
G:Q5503,Q5508,Q5509
B:Q5502,Q5506,Q5507
BUFFER
R:CN5404
G:CN5501
B:CN5303
26 DWN
1 PSIG
31 COM
3 VSIG1
4 VSIG2
5 VSIG3
6 VSIG4
7 VSIG5
8 VSIG6
16 RGT
17 HST
18 HCK2
19 HCK1
23 ENB
24 VCK
25 VST
9 VSIG7
10 VSIG8
11 VSIG9
12 VSIG10
13 VSIG11
14 VSIG12
TO LCD PANEL
R:IC5304
G:IC5502
B:IC5301
LCD DRIVER
ENB
DIR–CNT
POS–CNT1
POS–CNT2
DLY–CNT
NEXT–IN
NEXT–OUT
PRG
SID–OFST
OFFSET
SIG CEN
CLK–IN
V COM OFST
CLK–IN
MCLK
MCLK
SH-OUT1
SH-OUT2
SH-OUT3
SH-OUT4
SH-OUT5
SH-OUT6
31 VID7
29 VID8
27 VID9
21 VID10
19 VID11
17 VID12
CN5001
TO BB BOAD
MCLK–P 5
MCLK–N 6

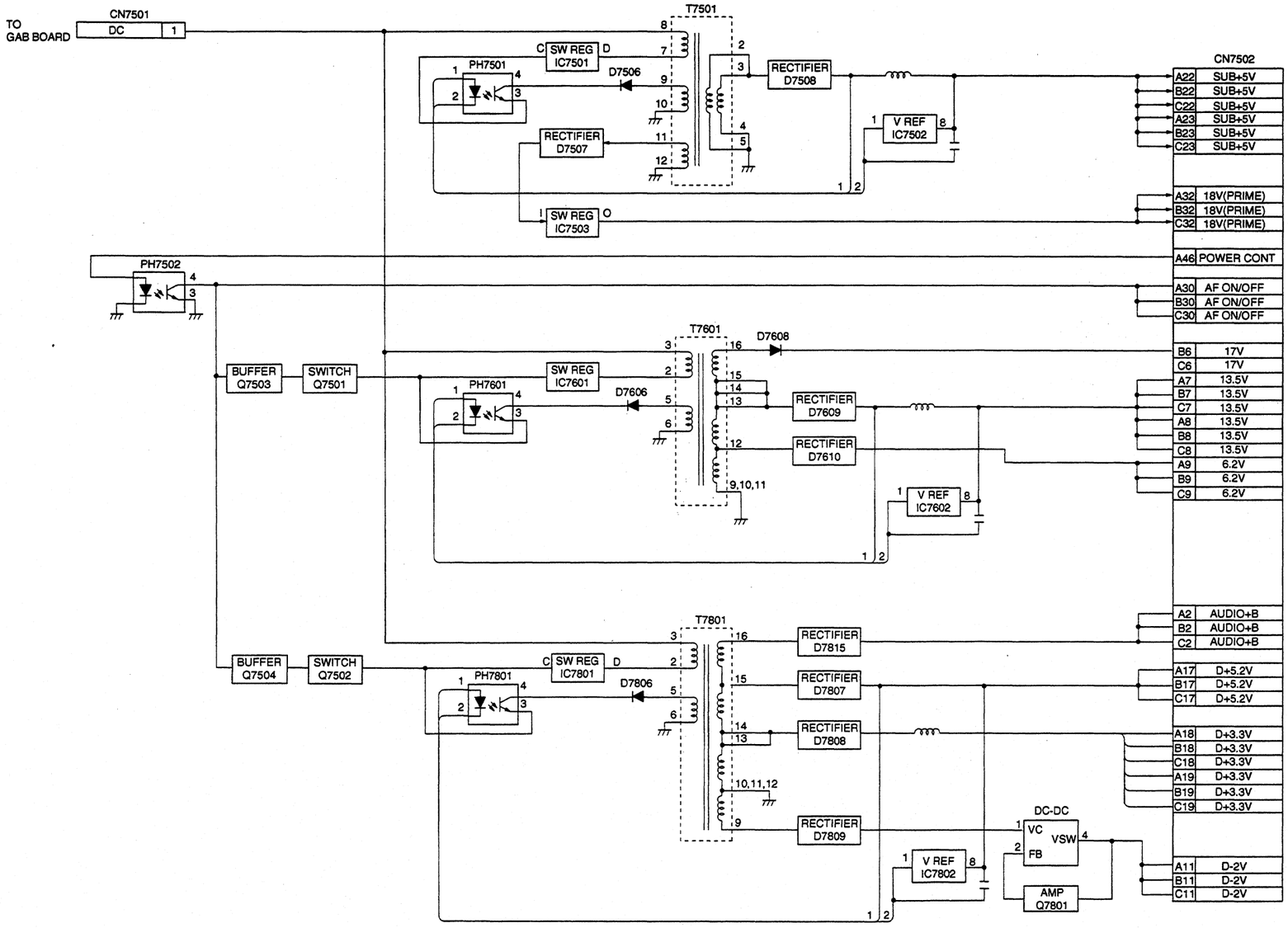
C BLOCK (1/2)


IC5002
LEVEL SHIFT
CN5001
1/2 CLKN 8
1/2 CLKP 7
HSYNC-P 9
HSYNC-N 10
VSYNC-N 12
VSYNC-P 11
TO BB BOARD
5V-2
B IN
B IN
B OUT
C IN
C IN
C OUT
D IN
D IN
D OUT
OE
ECLVCC
1/2 CLK
HSYNC
VSYNC
IC5214
TG
YO
I/O15
I/O1
Y2/SCLK
IN2/MODE
ISPEN
SDI/IN0
SDO/IN1
I/O31
I/O11
I/O2
I/O26
I/O19
I/O24
I/O21
I/O20
I/O25
I/O17
I/O16
PCG
ENB
VST
HST
VCK
HCK1
HCK2
FRP
IC5216(1/6–5/6)
BUFFER
IC5215(1/6–6/6)
BUFFER
IC5216(6/6)
BUFFER
HCK1R
HC1IG
HCK1B
HCK2R
HCK2G
HCK2B
FRP
CN5201
SCLK 1
MODE 3
ISPENE 5
SDI 6
SDO 7
1/2 SLFR
P 1/2
RB–DIR 1/2
DIR–CON 1/2
PRG PLS 1/2
+17V
15.5V REG IC5003
13.5V REG IC5004
+15.5V
+13.5V
12V REG IC5005
10V REG IC5006
+10V
+12V
5V–2
+6V
5V REG IC5007
A-5V
+13V
12V REG IC5010
5V–4
TEMP DET TH101
D5001 CLIP
IC5008
A INV Y
INQ 5003
CN5001
17 TEMP PLOT
TO BB BOARD
TO FAN
CN5005
2 FAN PROT
CN5006
2 FAN PROT
CN5007
2 FAN PROT
D5002 OR
D5003 OR
D5004 OR
IC5009(1/2) BUFFER
IC5009(2/2) BUFFER
16 FAN PROT
TO BC BOARD
CN5002
SHIFT+ 3
SHIFT– 4
ZOOM+ 5
ZOOM– 6
FOCUS+ 7
FOCUS– 8
SPR+ 25
SPR– 26
SPL+ 27
SPL– 28
CUR–PROT–CB 30
CN5003
5 SHIFT+
6 SHIFT–
1 ZOOM+
2 ZOOM–
3 FOCUS+
FOCUS–
TO
ZOOM, SHIFT, FOCUS MOTOR
CN5048
1 SPL+
2 SPL–
(R)
CN5049
1 SPR+
2 SPR–
(L)
CN5004
1 CUR–PROT–CB
2 PULL5V
5V
CN751
CUR–PROT–CB 1
PULL5V 2
CVR–PROT
S751
UC

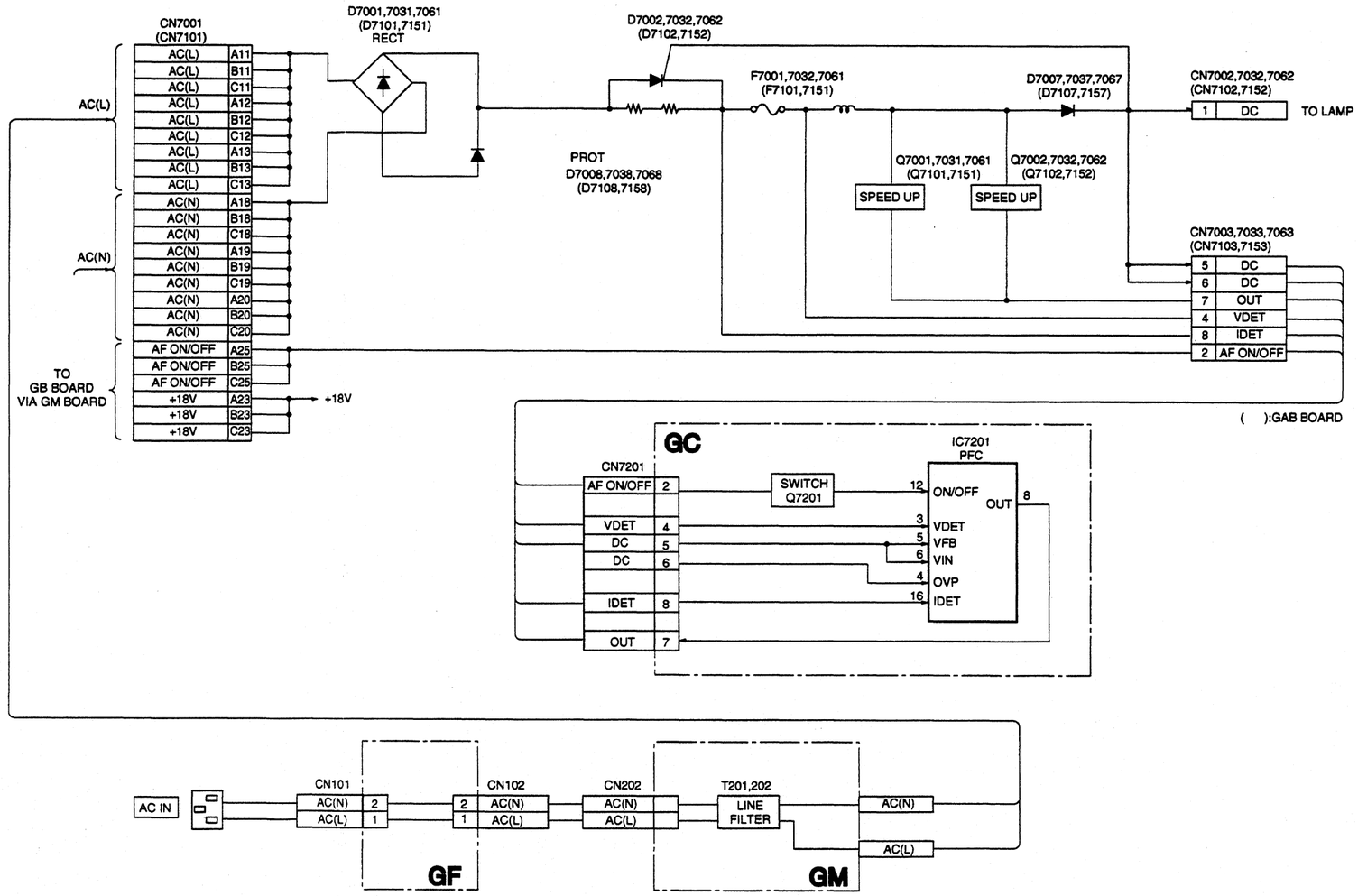
C (2/2),UC BLOCK


CN6003
LIGHT 2
SCL-H 3
SDA-H 4
TO M BOARD VIA XC,BM BOARDS
LIGHT
SCL
SDA
+5V
LED DRIVER Q6312
Q6314
LED DRIVER Q6311
Q6313
D6301 PIC
D6304 AUDIO
D6307 APA
D6310 VIDEO
D6313 SELECT
D6316 INPUT-A
D6319 INPUT-B
D6322 INPUT-C
D6325 VOLUME+
D6328 VOLUME–
D6331 PATTERN
IC6301 DA
IC6302 BUFFER
SCL D0/A012 I D7/A05 SDA
20
21
5-12
2,4,6,8
11,13,15,17
1A1-1A4
2A1-2A4
2Y4 3 RIGHT
2Y3 5 ENTER
2Y2 7 RESET
2Y1 9 ZOOM
1Y4 12 MENU
1Y3 14 UP
1Y2 16 DOWN
1Y1 18 LEFT
LED SW Q6301-6310
RIGHT ENTER LEFT RESET DOWN ZOOM UP SHIFT MENU FOCUS
D6302 , D6303 , D6308 , D6309 , D6314 , D6315 , D6320 , D6321 , D6326 , D6327
D6305 , D6306 , D6311 , D6312 , D6317 , D6318 , D6323 , D6324 , D6329 , D6330
IC6303 DA
IC6304 BUFFER
2Y2 7 RIGHT
2Y1 9 ENTER
2Y3 5 BLCONT
CN6001
P-LED 1
LED DRIVER Q6002
LED DRIVER Q6001
D6336 ON LED
D6335 ON
CN6002
LCD CONT 1
LED-LAMP1 2
LED-LAMP2 3
LED-LAMP3 4
LED-LAMP4 5
LED-TEMP 6
LED-CVR 7
LED-FAN 8
LED-PWRSV 9
D6204
D6203
SWITCH Q6212
SWITCH Q6213
SWITCH Q6217
SWITCH Q6214
SWITCH Q6218
SWITCH Q6208
SWITCH Q6206
SWITCH Q6207
SWITCH Q6205
LED DRIVER Q6209
LED DRIVER Q6210
LED DRIVER Q6215
LED DRIVER Q6211
LED DRIVER Q6216
LED DRIVER Q6204
LED DRIVER Q6202
LED DRIVER Q6203
LED DRIVER Q6201
LAMP FAIL DL6205
1 D6201
2 D6205
3 D6202
4 D6206
HIGH TEMP DL6204
COVER FAIL DL6202
FAN FAIL DL6203
POWER SAVING DL6201
CN6003
PWR-LED 1
TO LCD MODULE
PWR-LED
LED DRIVER Q6317
+5V
LED DRIVER Q6316
LED DRIVER Q6315
D6332 STANDBY
D6335 ON
D6334 STANDBY
D6333 LIGHT
CN6004
KEY0 1
KEY1 2
KEY2 3
KEY3 4
SIRCS-R 5
TO M BOARD VIA XC,BM BOARDS
IC6001
IR-RX
(REAR)
SELECT S6101 , VIDEO S6104 , VOL– S6107 , VOL+ S6110 , PIC MUTE S6113 , AUDIO MUTE S6316 , STAND BY S6119 , ON S6122 ,
INPUT-C S6102 , INPUT-B S6105 , INPUT-A S6108 , LIGHT S6111 , FOCUS S6114 , PIC SHIFT S6117 , ZOOM S6120 , PATTERN S6123 ,
SHIFT S6103 , RESET S6106 , LEFT S6109 , RIGHT S6112 , DOWN S6115 , UP S6118 , ENTER S6121 , MENU S6124 ,

H BLOCK


TO GAB BOARD
CN7501
DC
1
T7501
PH7501
SW REG IC7501
D7506
RECTIFIER D7508
RECTIFIER D7507
V REF IC7502
SW REG IC7503
CN7502
A22 SUB+5V
B22 SUB+5V
C22 SUB+5V
A23 SUB+5V
B23 SUB+5V
C23 SUB+5V
A32 18V(PRIME)
B32 18V(PRIME)
C32 18V(PRIME)
A46 POWER CONT
A30 AF ON/OFF
B30 AF ON/OFF
C30 AF ON/OFF
PH7502
BUFFER Q7503
SWITCH Q7501
T7601
D7608
PH7601
SW REG IC7601
D7606
RECTIFIER D7609
RECTIFIER D7610
V REF IC7602
B6 17V
C6 17V
A7 13.5V
B7 13.5V
C7 13.5V
A8 13.5V
B8 13.5V
C8 13.5V
A9 6.2V
B9 6.2V
C9 6.2V
TO GAA,GAB and MB BOARDS VIA GM,XB BOARDS
BUFFER Q7504
SWITCH Q7502
T7801
PH7801
SW REG IC7801
D7806
RECTIFIER D7815
RECTIFIER D7807
RECTIFIER D7808
RECTIFIER D7809
V REF IC7802
DC-DC
VC
FB
VSW
AMP Q7801
A2 AUDIO+B
B2 AUDIO+B
C2 AUDIO+B
A17 D+5.2V
B17 D+5.2V
C17 D+5.2V
A18 D+3.3V
B18 D+3.3V
C18 D+3.3V
A19 D+3.3V
B19 D+3.3V
C19 D+3.3V
A11 D-2V
B11 D-2V
C11 D-2V

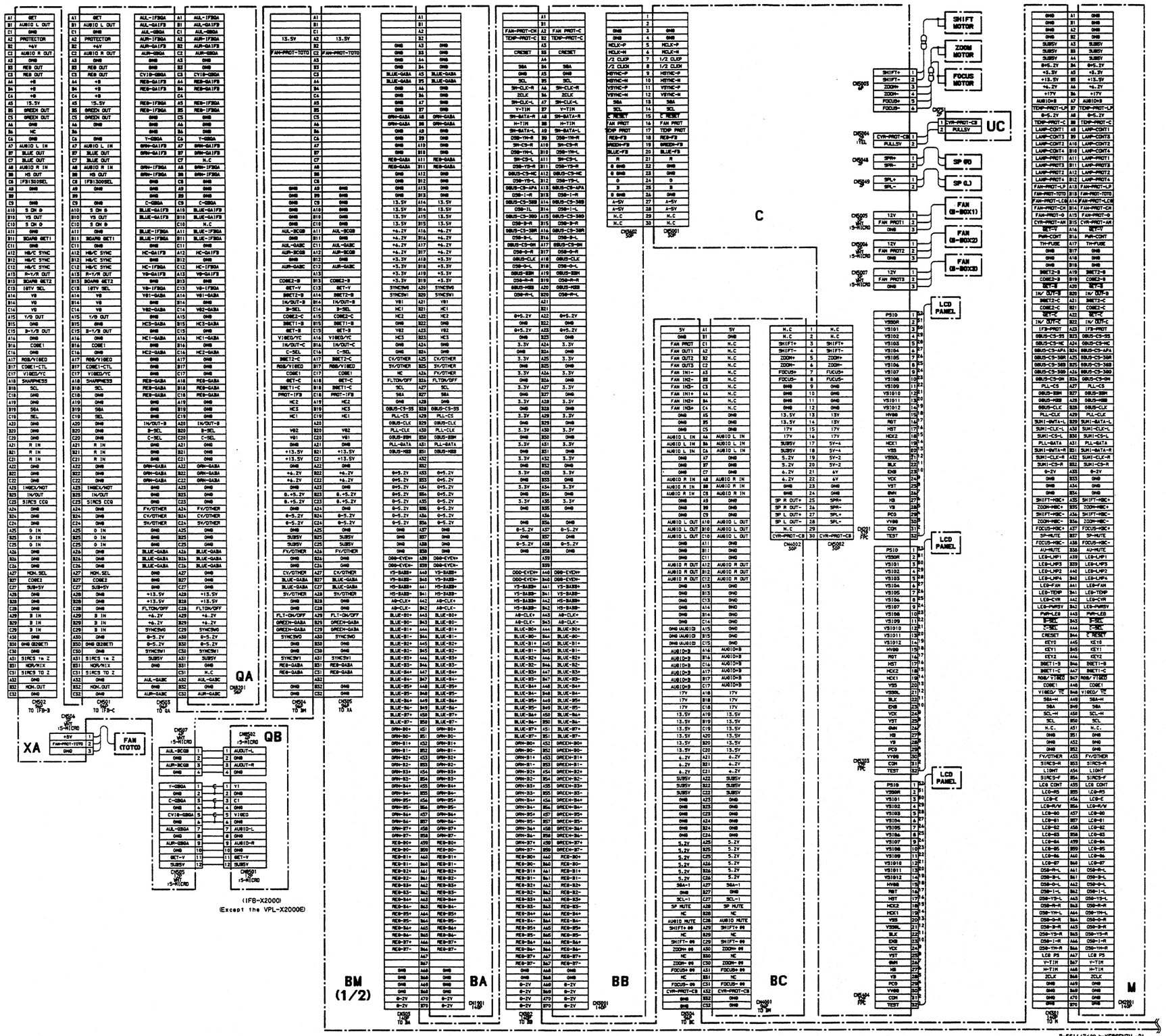
GB BLOCK

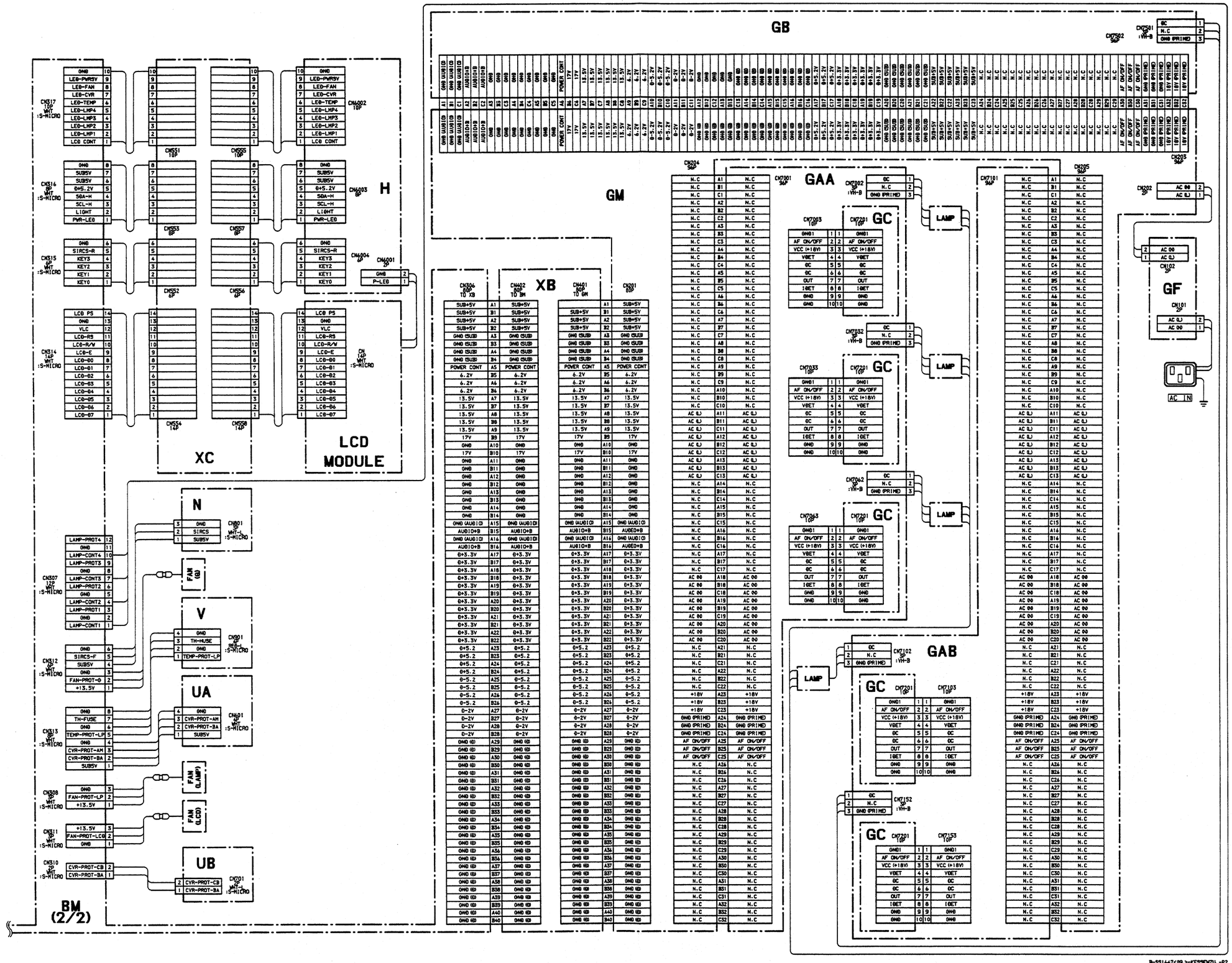


GAA (GAB), GC, GF, GM BLOCK

SECTION 9
DIAGRAMS

9-1. FRAME SCHEMATIC DIAGRAM




BM (2/2)
XC
LCD MODULE
XB
GB
GM
GAA
GAB
GC
GF
H
V
UA
UB
N
LAMP
AC IN
CN317 14P WHT :S-MICRO
CN316 9P WHT :S-MICRO
CN315 6P WHT :S-MICRO
CN314 14P WHT :S-MICRO
CN307 10P WHT :S-MICRO
CN312 6P WHT :S-MICRO
CN313 9P WHT :S-MICRO
CN308 3P WHT :S-MICRO
CN311 3P WHT :S-MICRO
CN310 2P WHT :S-MICRO
CN551 10P
CN555 10P
CN553 8P
CN557 8P
CN552 6P
CN556 6P
CN554 14P
CN558 14P
CN4002 10P
CN4003 8P
CN4004 6P
CN4001 2P
CN801 3P WHT-L :S-MICRO
CN7001 36P
CN7002 3P :VH-B
CN7003 10P
CN7201 10P GC
CN7032 3P :VH-B
CN7033 10P
CN7042 3P :VH-B
CN7043 10P
CN7102 3P :VH-B
CN7103 10P
CN7152 3P :VH-B
CN7153 10P
CN7101 36P
CN205 36P
CN204 36P
CN203 36P
CN202 2P
CN102 2P
CN101 2P
CN504 10P TO XB
CN402 10P TO BM
CN401 10P TO GM
CN201 80P
FAN (G)
FAN (LAMP)
FAN (LCD)

9-2. SCHEMATIC DIAGRAMS/PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted.
  50WV or less are not indicated except for electrolytics.
  pF: μμF
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4W

- Chip resister are 1/10W unless otherwise noted.
- All resistors are in ohms. (MΩ = 1000KΩ, KΩ = 1000Ω)
- : nonfiammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- METAL FILM (: RN) resister in 0.5% or 1%, 1/4W unless otherwise specified.
- All voltages are in V.
- Voltage variations may be noted due to normal production tolerance.
- Reading are taken with Composite Video and Component (R.G.B. HD, VD) color-bar signal input from color-bar pattern generator.
- Voltage are dc with respect to ground unless otherwise noted.
- no mark: Composite Video signal and comon
  ( ) : Component (R.G.B. HD, VD) signal (QA Board)
- : B+/B– line.
- : signal path.
- Circled numbers are waveforms reference.
- # : not use.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

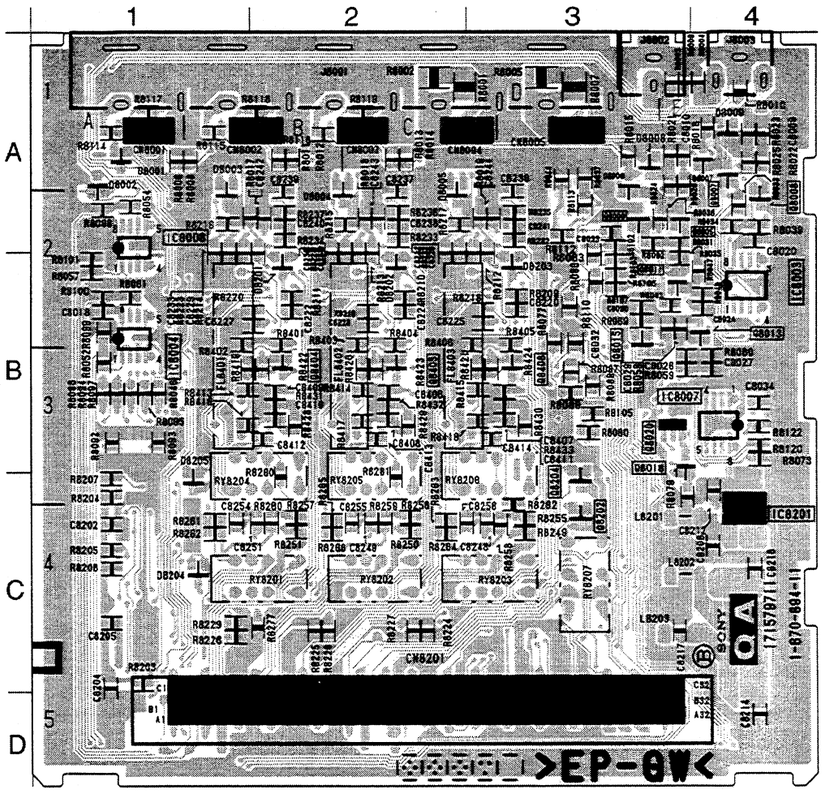
The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

QA

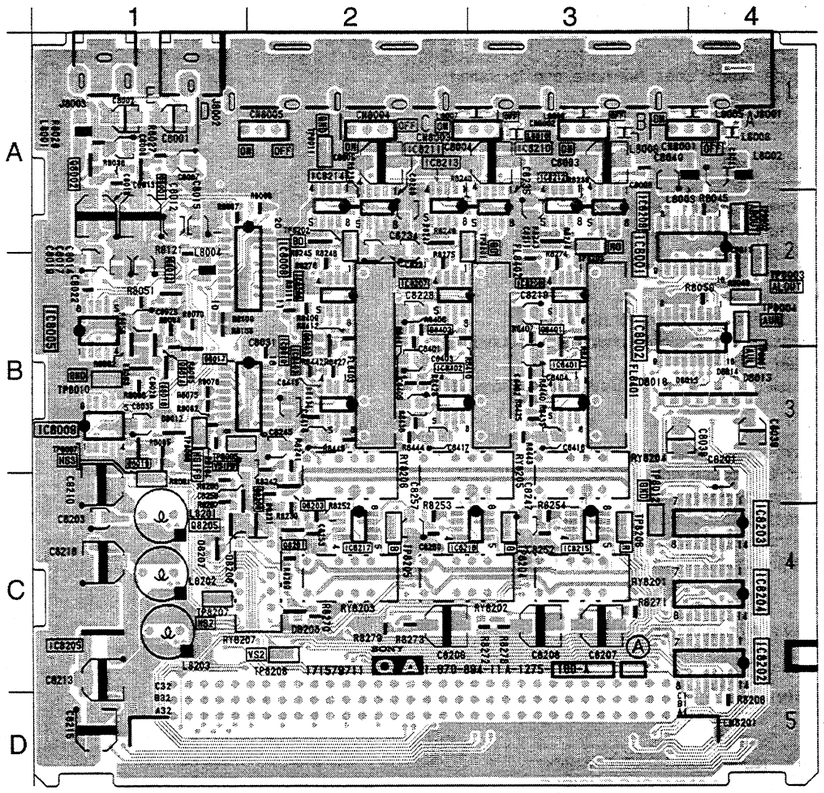
1-670-894-11

D8001	*A-1	Q8001	A-1
D8002	*A-1	Q8002	A-1
D8003	*A-1	Q8005	*A-3
D8004	*A-2	Q8006	*A-3
D8005	*A-2	Q8007	*A-4
D8006	*A-3	Q8008	*A-4
D8007	*A-4	Q8011	*B-3
D8008	*A-3	Q8012	B-1
D8009	*A-4	Q8013	*B-4
D8012	B-1	Q8014	B-1
D8013	B-4	Q8015	*B-3
D8014	B-4	Q8016	B-1
D8015	B-4	Q8017	B-1
D8016	B-3	Q8018	*B-3
D8201	*B-2	Q8019	B-1
D8202	*B-2	Q8020	*B-3
D8203	*B-3	Q8201	B-1
D8204	*C-1	Q8202	*C-3
D8205	*C-1	Q8203	C-2
D8206	C-2	Q8204	*C-3
D8207	C-1	Q8205	C-1
D8208	C-2	Q8206	C-2
		Q8401	B-3
IC8001	A-3	Q8402	B-2
IC8002	B-3	Q8403	B-2
IC8003	*B-4	Q8404	*B-2
IC8004	*B-1	Q8405	*B-2
IC8005	B-1	Q8406	*B-3
IC8006	*A-1		
IC8007	*B-4	TP8001	B-4
IC8008	B-2	TP8002	A-4
IC8009	B-1	TP8003	B-4
IC8010	B-2	TP8004	B-4
IC8201	*C-4	TP8005	B-1
IC8202	C-4	TP8006	B-1
IC8203	C-4	TP8007	B-1
IC8204	C-4	TP8010	B-1
IC8205	C-1	TP8011	A-2
IC8206	B-3	TP8012	C-3
IC8207	B-2	TP8201	A-3
IC8208	B-2	TP8202	A-2
IC8209	A-3	TP8203	A-3
IC8210	A-3	TP8204	C-3
IC8211	A-2	TP8205	C-2
IC8212	A-3	TP8206	C-3
IC8213	A-2	TP8207	C-1
IC8214	A-2	TP8208	C-2
IC8215	C-3		
IC8216	C-3	*:B Side mount	
IC8217	C-2		
IC8401	B-3		
IC8402	B-3		
IC8403	B-2		



QA – B SIDE –

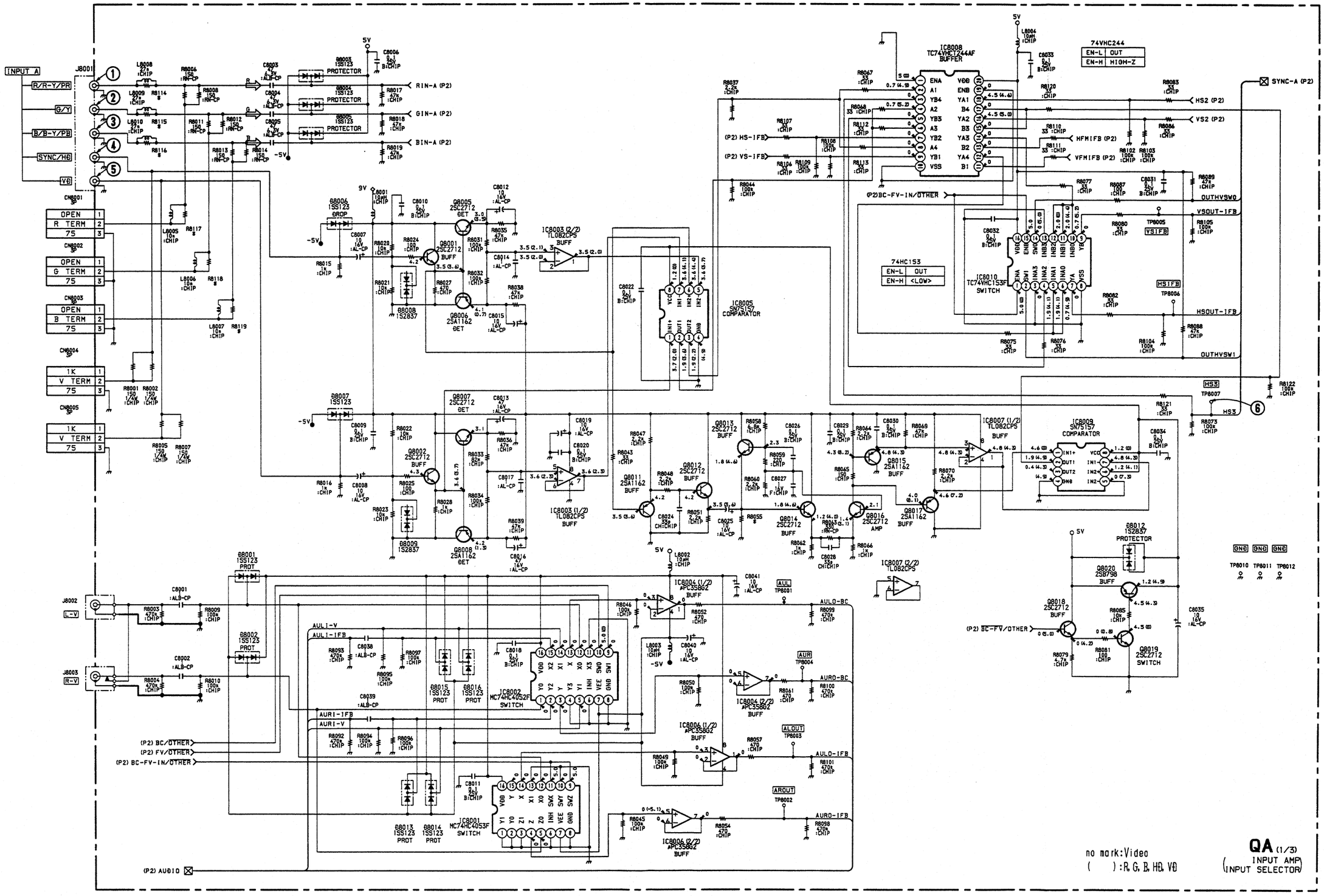
SUFFIX ; -11



QA – A SIDE –

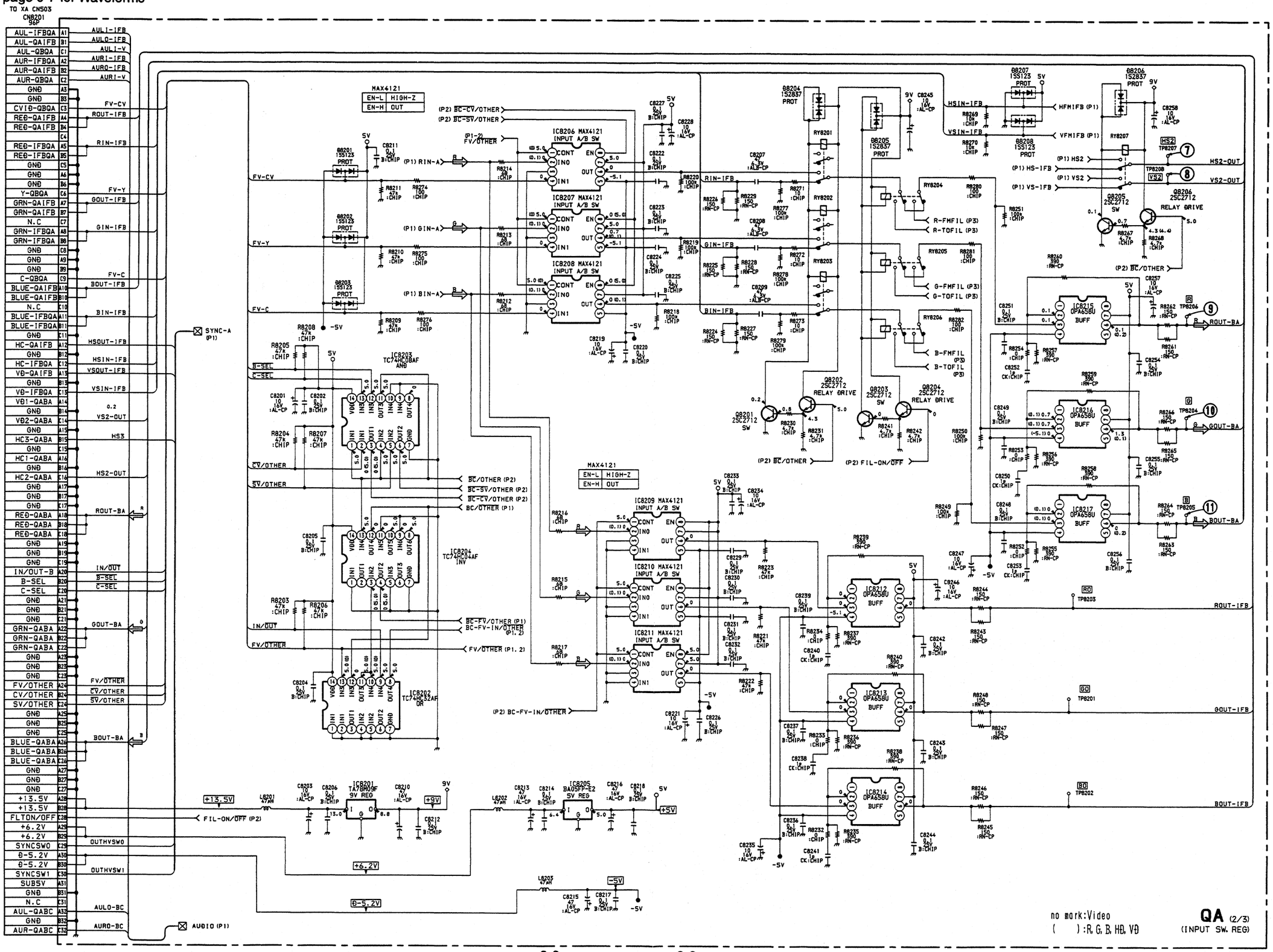
SUFFIX ; -11

- Refer to page 9-4 for Printed Wiring Board
- Refer to page 9-7 for Waveforms
- Refer to page 9-8 for IC Block Diagrams

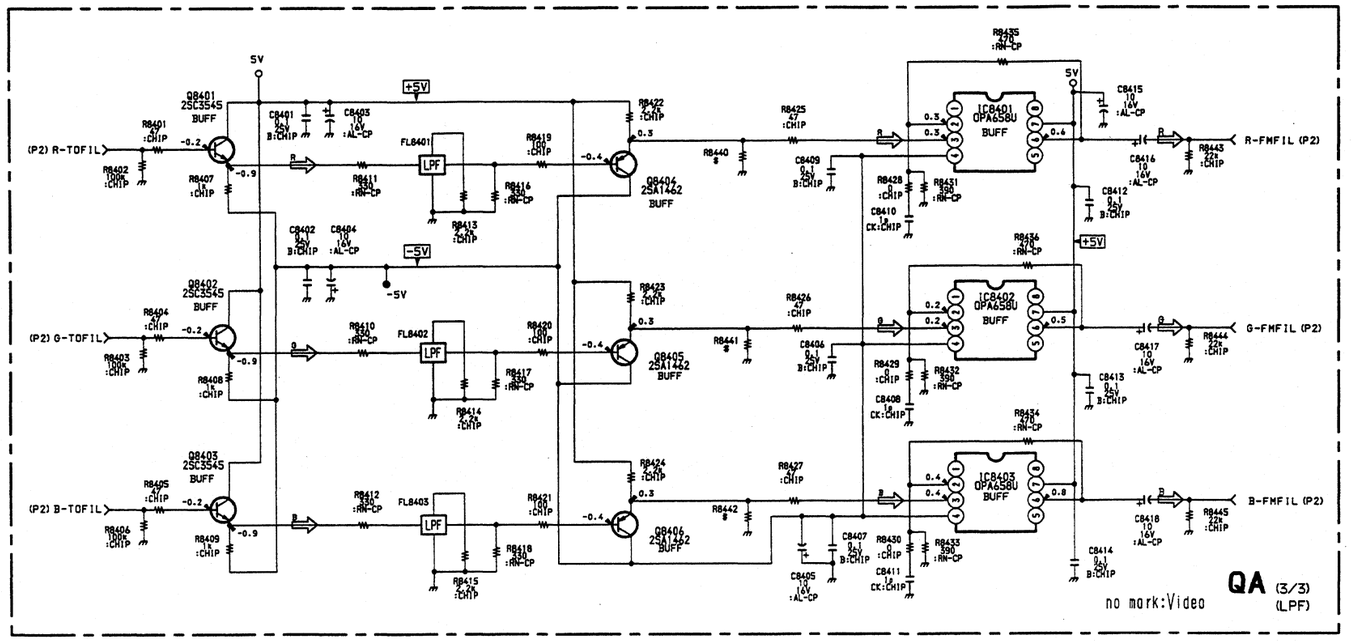


9-5 9-5

• Refer to page 9-4 for Printed Wiring Board
• Refer to page 9-7 for Waveforms
• Refer to page 9-8 for IC Block Diagrams



- Refer to page 9-4 for Printed Wiring Board
- Refer to page 9-7 for Waveforms
- Refer to page 9-8 for IC Block Diagrams

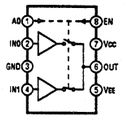


QA Board Waveforms

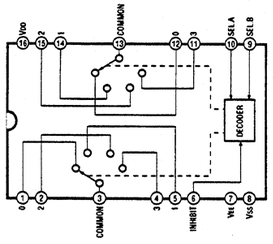
① 0.7Vp-p (H) TP8206 (R/R-Y)	② 0.7Vp-p (H) TP8204 (G/Y)	③ 0.7Vp-p (H) TP8205 (B/B-Y)	④ 4.4Vp-p (H) J8001 (SYNC/HD)
⑤ 4.4Vp-p (H) J8001 (VD)	⑥ 4Vp-p (H) TP8207 (HS3)	⑦ 4Vp-p (H) TP8207 (HS2)	⑧ 4Vp-p (H) TP8208 (VS2)
⑨ 0.7Vp-p (H) TP8206 (R/R-Y)	⑩ 0.7Vp-p (V) TP8204 (G/Y)	⑪ 0.7Vp-p (H) TP8205 (B/B-Y)	

QA Board IC Block Diagrams

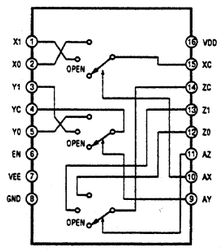
MAX4121CSA-TE2 (IC8206 – 8211)



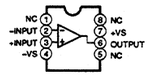
MC74HC4052AF-T2 (IC8002)



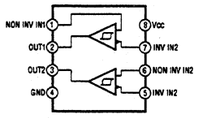
MC74HC4053F-T2 (IC8001)



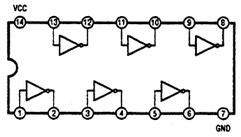
OPA658U-T2 (IC8012 – 8017, 8401 – 8403)



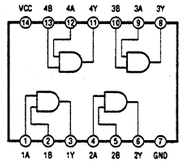
SN75157 (IC8009)



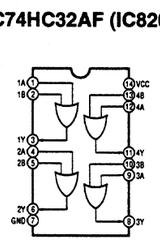
TC74HC04AF1 (IC8204)



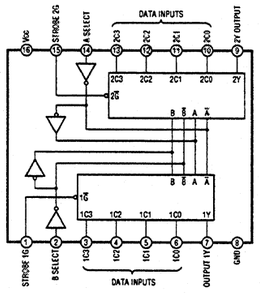
TC74HC08AF (IC8203)

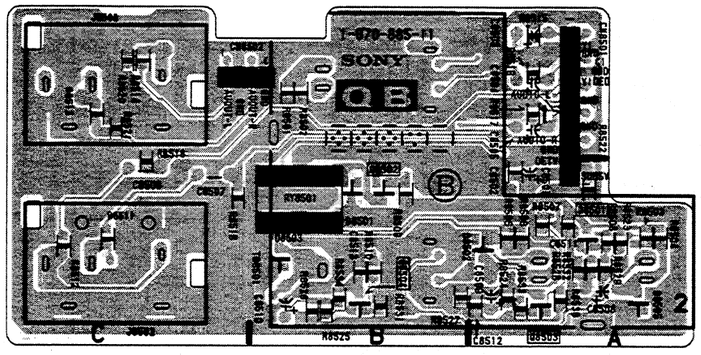


TC74HC32AF (IC8202)



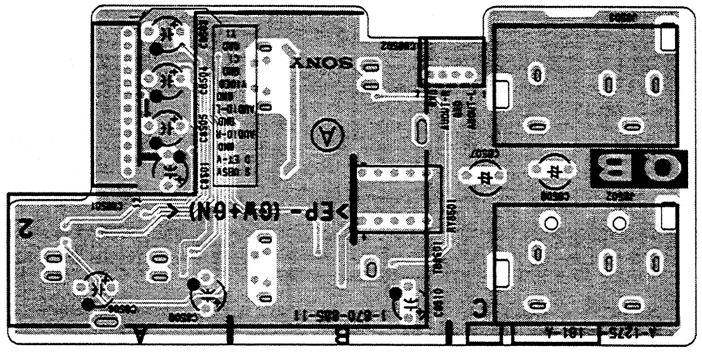
TC 74VHC153F (IC8010)





QB – B SIDE –

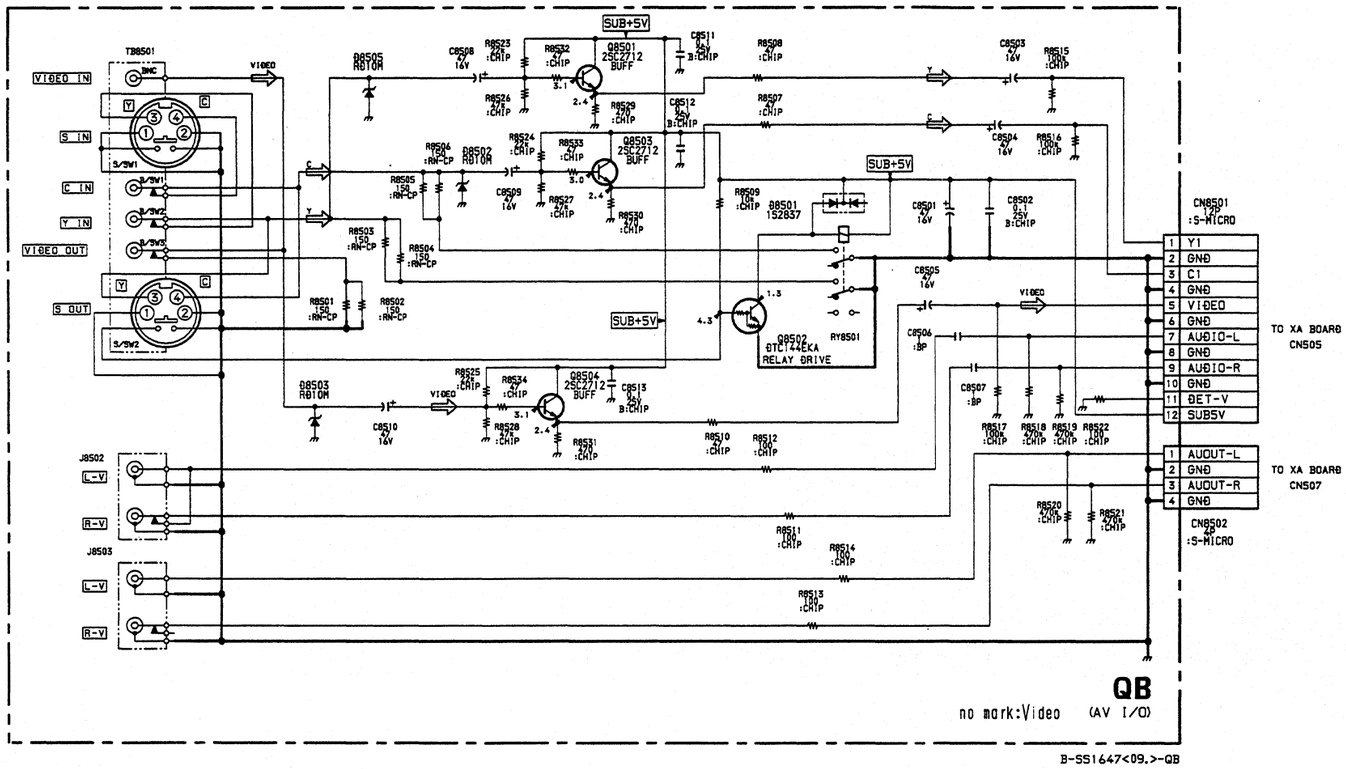
SUFFIX ; -11



QB – A SIDE –

SUFFIX ; -11

• Refer to page 9-8 for Printed Wiring Board



	VPL-X2000U/X2000M	VPL-X2000E
C8501	47 16V	#
C8503	47 16V	#
C8504	47 16V	#
C8505	47 16V	#
C8506	1 :BP	#
C8507	1 :BP	#
C8508	47 16V	#
C8509	47 16V	#
C8510	47 16V	#
C8511	0.1 25V B:CHIP	#
C8512	0.1 25V B:CHIP	#
C8513	0.1 25V B:CHIP	#
D8501	1S2837	#
D8502	RD10M	#
D8503	RD10M	#
D8505	RD10M	#
J8502		#
Q8501	2SC2712	#
Q8502	DTC144EKA	#
Q8503	2SC2712	#
Q8504	2SC2712	#
R8501	150 :RN-CP	#
R8502	150 :RN-CP	#
R8503	150 :RN-CP	#
R8504	150 :RN-CP	#
R8505	150 :RN-CP	#
R8506	150 :RN-CP	#
R8507	47 :CHIP	#
R8508	47 :CHIP	#
R8509	10k :CHIP	#
R8510	47 :CHIP	#
R8511	100 :CHIP	#
R8512	100 :CHIP	#
R8522	100 :CHIP	#
R8523	22k :CHIP	#
R8524	22k :CHIP	#
R8525	22k :CHIP	#
R8526	47k :CHIP	#
R8527	47k :CHIP	#
R8528	47k :CHIP	#
R8529	470 :CHIP	#
R8530	470 :CHIP	#
R8531	470 :CHIP	#
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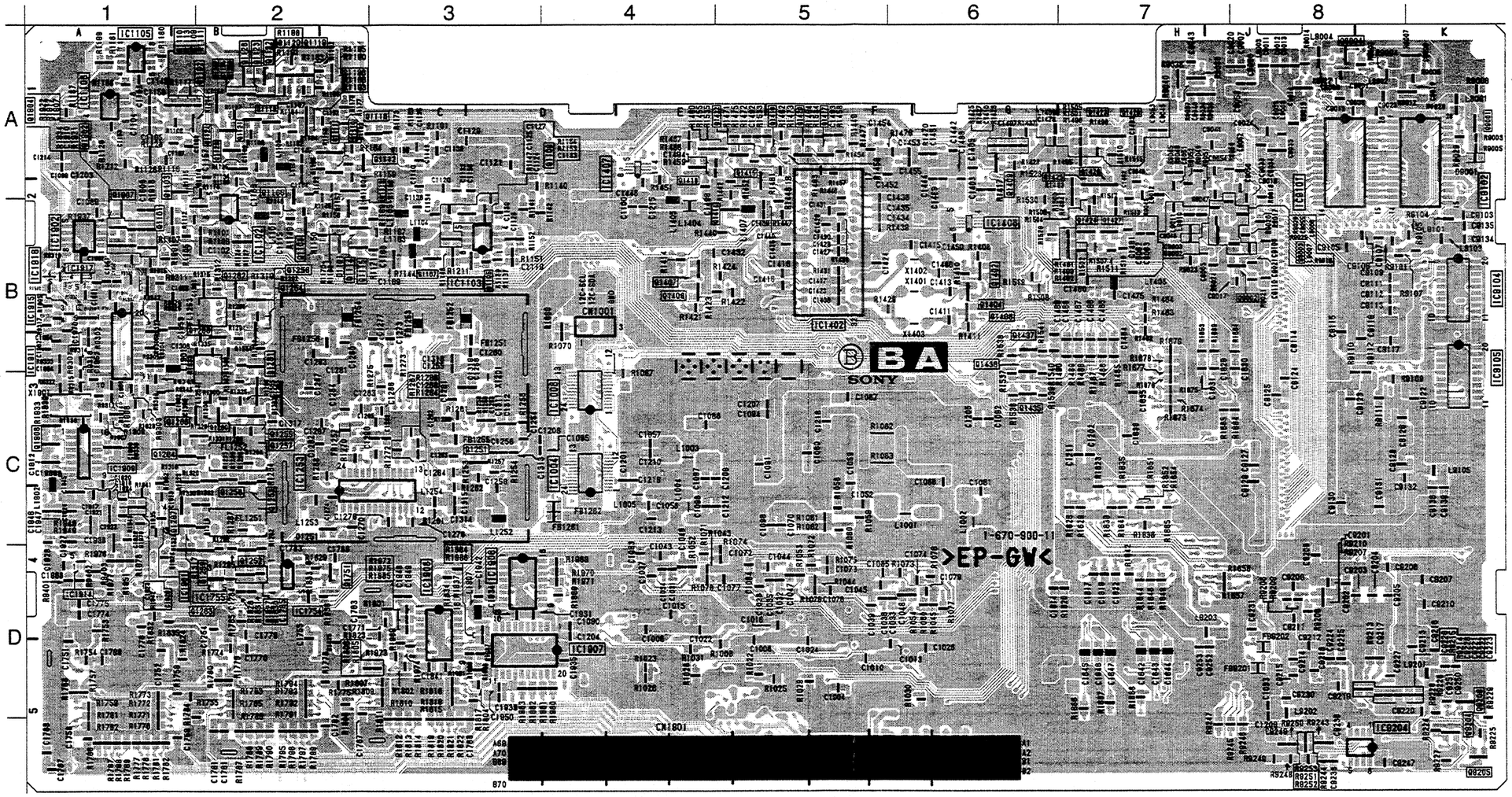
TB8501		#

: not use.



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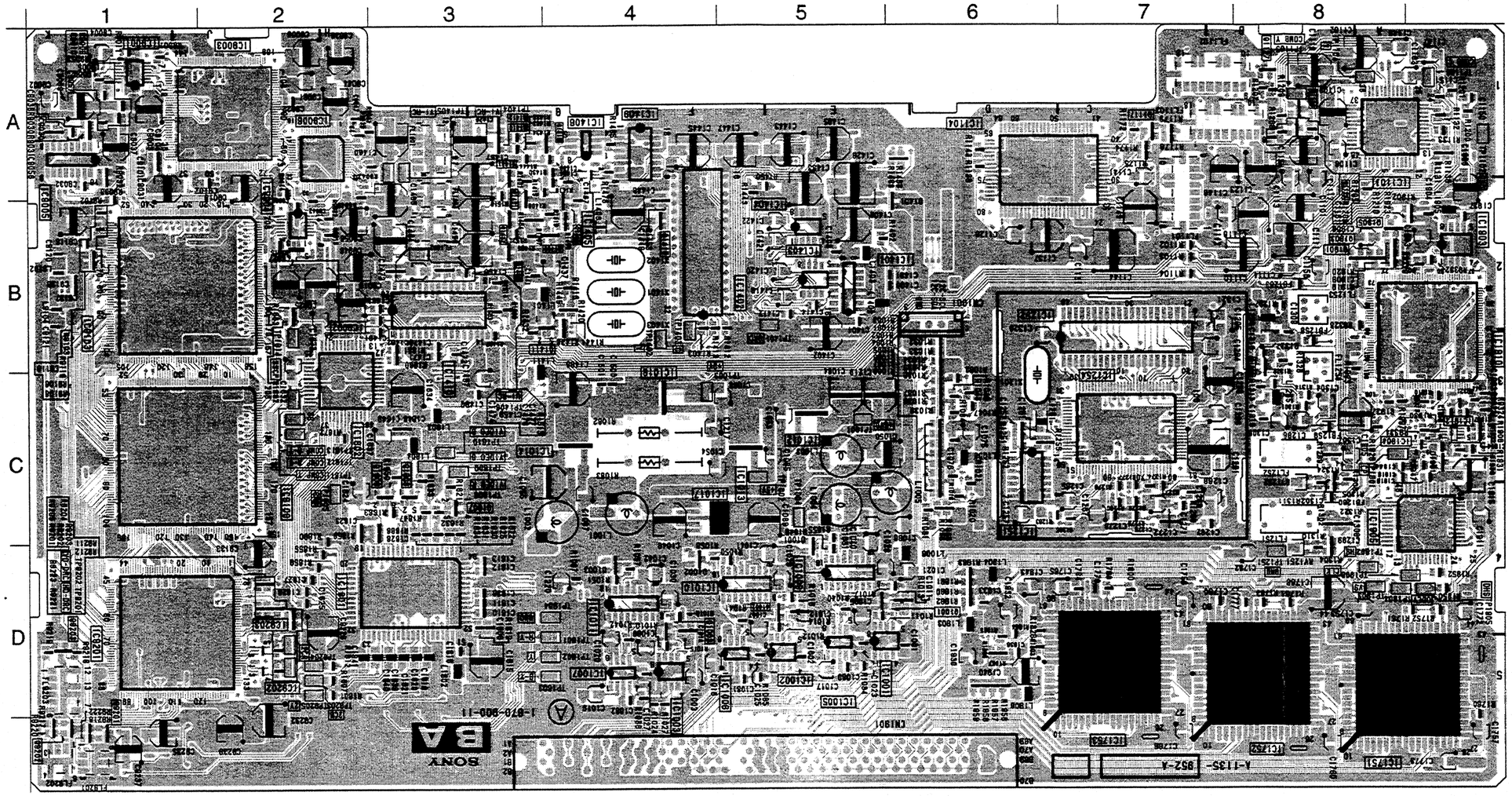
BA
–
1-670-900-11

BA – B SIDE –

SUFFIX ; -11

D1001	C-5	IC1101	A-8	IC1753	D-7	IC9101	*A-8	Q1113	*A-2	Q1258	*C-2	Q1414	*B-5	Q1901	B-8	TP1104	A-8	TP1904	D-8
D1002	D-4	IC1102	*B-2	IC1754	*D-2	IC9102	*A-8	Q1114	*B-2	Q1259	*D-2	Q1415	*A-5	Q1902	*B-1	TP1105	A-8	TP1905	D-8
D1003	D-3	IC1103	*B-3	IC1755	*D-2	IC9103	B-1	Q1115	*B-2	Q1260	*C-2	Q1416	B-4	Q1903	B-8	TP1106	A-8	TP1906	D-8
D1101	*B-2	IC1104	A-6	IC1901	*C-1	IC9104	*B-8	Q1116	*A-3	Q1261	*B-2	Q1417	*A-5	Q1904	*A-1	TP1251	D-8	TP9201	D-1
D1401	B-6	IC1105	*A-1	IC1902	*B-1	IC9105	*C-8	Q1117	A-7	Q1262	*B-2	Q1418	*A-4	Q1905	B-8	TP1401	B-5	TP9202	D-1
D1901	C-8	IC1106	*A-1	IC1903	B-8	IC9106	C-1	Q1118	*A-2	Q1263	*C-1	Q1419	*A-5	Q1906	*C-1	TP1402	B-4	TP9203	D-2
D9001	*A-8	IC1251	C-6	IC1904	C-8	IC9201	D-1	Q1119	*A-2	Q1264	*C-1	Q1420	*A-5	Q1907	*B-1	TP1403	B-4	TP9204	D-2
		IC1252	B-7	IC1905	C-8	IC9202	D-2	Q1120	*A-2	Q1265	B-8	Q1422	*A-5	Q9001	*A-8	TP1404	A-3	TP9205	D-2
IC1001	D-5	IC1253	*C-2	IC1906	*D-3	IC9203	D-2	Q1121	*A-2	Q1266	*C-1	Q1423	*A-7	Q9002	*B-8	TP1405	A-3		
IC1002	D-5	IC1254	C-7	IC1907	*D-3	IC9204	*D-8	Q1122	*A-2	Q1267	*C-1	Q1424	*B-7	Q9003	*B-8	TP1406	C-3	*:B Side mount	
IC1003	D-4	IC1401	B-9	IC1908	*D-3			Q1123	*A-2	Q1268	*B-2	Q1425	*A-7	Q9004	*A-8	TP1601	D-4		
IC1004	*C-4	IC1402	B-4	IC1909	*C-1	Q1001	D-5	Q1124	*A-2	Q1401	B-3	Q1426	*A-7	Q9201	D-1	TP1602	D-4		
IC1005	D-5	IC1403	B-5	IC1910	B-8	Q1002	D-5	Q1125	*A-2	Q1402	*B-6	Q1427	*B-7	Q9202	D-1	TP1603	D-4		
IC1006	D-5	IC1404	A-5	IC1911	*B-1	Q1003	D-4	Q1126	*A-2	Q1403	B-4	Q1428	*A-7	Q9203	D-1	TP1604	D-4		
IC1007	D-4	IC1405	B-4	IC1912	C-8	Q1101	*B-1	Q1127	A-8	Q1404	*B-6	Q1430	B-3	Q9204	*D-8	TP1608	C-3		
IC1008	*C-4	IC1406	A-4	IC1914	*D-1	Q1102	*A-1	Q1128	A-8	Q1405	B-4	Q1431	A-3	Q9205	*D-8	TP1609	C-3		
IC1009	D-5	IC1407	*A-4	IC1915	*B-1	Q1103	*A-1	Q1129	A-8	Q1406	*B-6	Q1432	B-3	Q9206	*D-8	TP1610	C-3		
IC1010	D-5	IC1408	*B-6	IC1916	*B-1	Q1105	*B-3	Q1251	*C-3	Q1407	*B-4	Q1435	*C-6			TP1611	C-2		
IC1011	D-4	IC1409	A-4	IC1917	*B-1	Q1106	*A-2	Q1252	*D-2	Q1408	*B-4	Q1436	*B-6	TP1001	C-5	TP1612	C-2		
IC1012	C-5	IC1410	C-3	IC9001	A-1	Q1107	*B-3	Q1253	*C-2	Q1409	*A-6	Q1437	*B-6	TP1002	C-5	TP1613	C-2		
IC1013	C-5	IC1601	D-3	IC9003	A-2	Q1108	*B-2	Q1254	*B-2	Q1410	A-3	Q1607	C-3	TP1003	C-5	TP1614	B-2		
IC1014	C-3	IC1602	C-2	IC9004	A-2	Q1110	*A-2	Q1255	*C-2	Q1411	B-3	Q1608	C-3	TP1004	C-5	TP1901	C-8		
IC1016	C-4	IC1751	D-8	IC9005	A-1	Q1111	*A-2	Q1256	*B-2	Q1412	A-3	Q1609	C-3	TP1005	C-2	TP1902	D-8		
IC1017	C-4	IC1752	D-8	IC9006	A-2	Q1112	*A-2	Q1257	*C-2	Q1413	A-4	Q1751	*D-2	TP1102	A-8	TP1903	D-8		

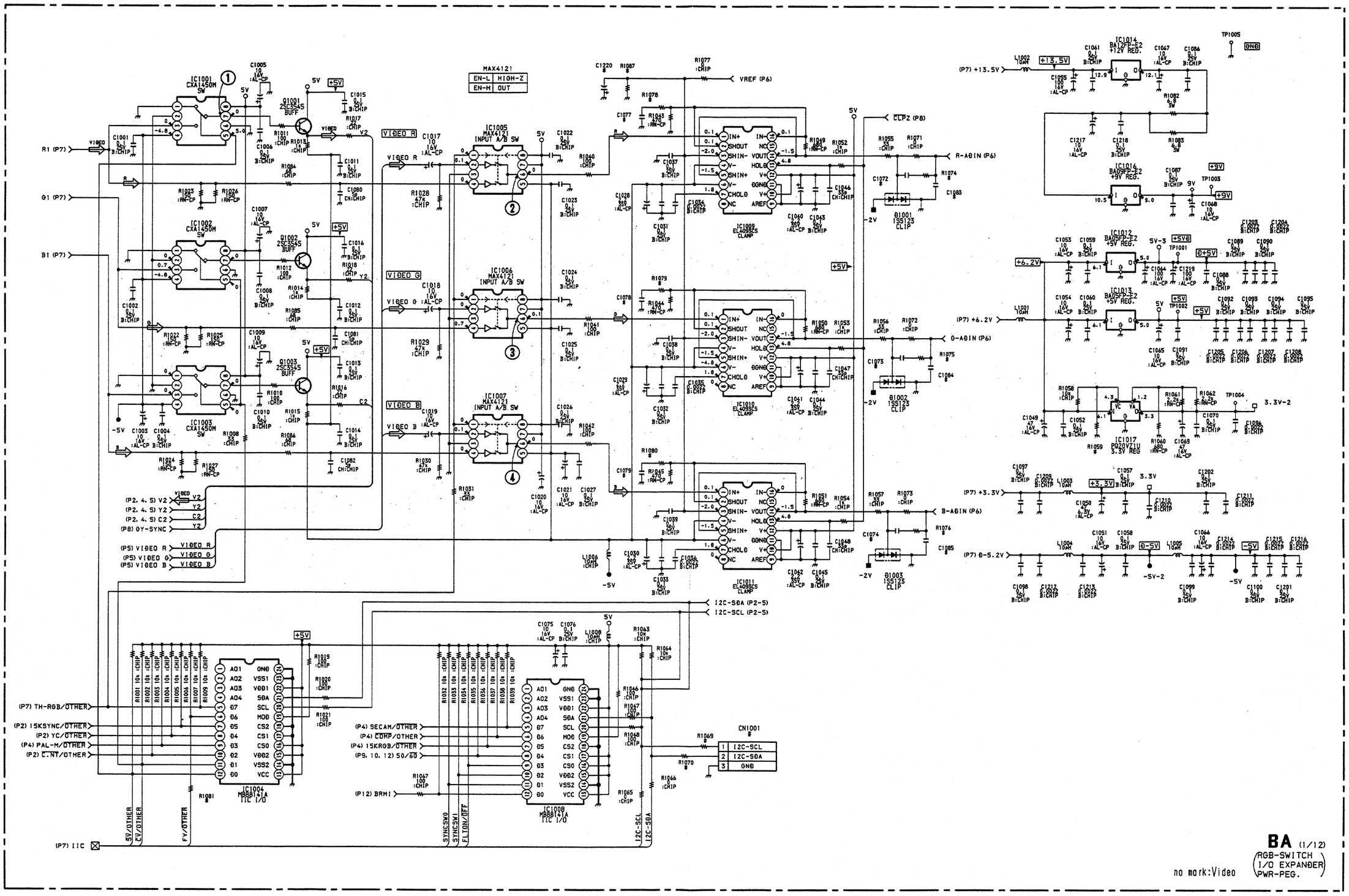
9-10 9-10



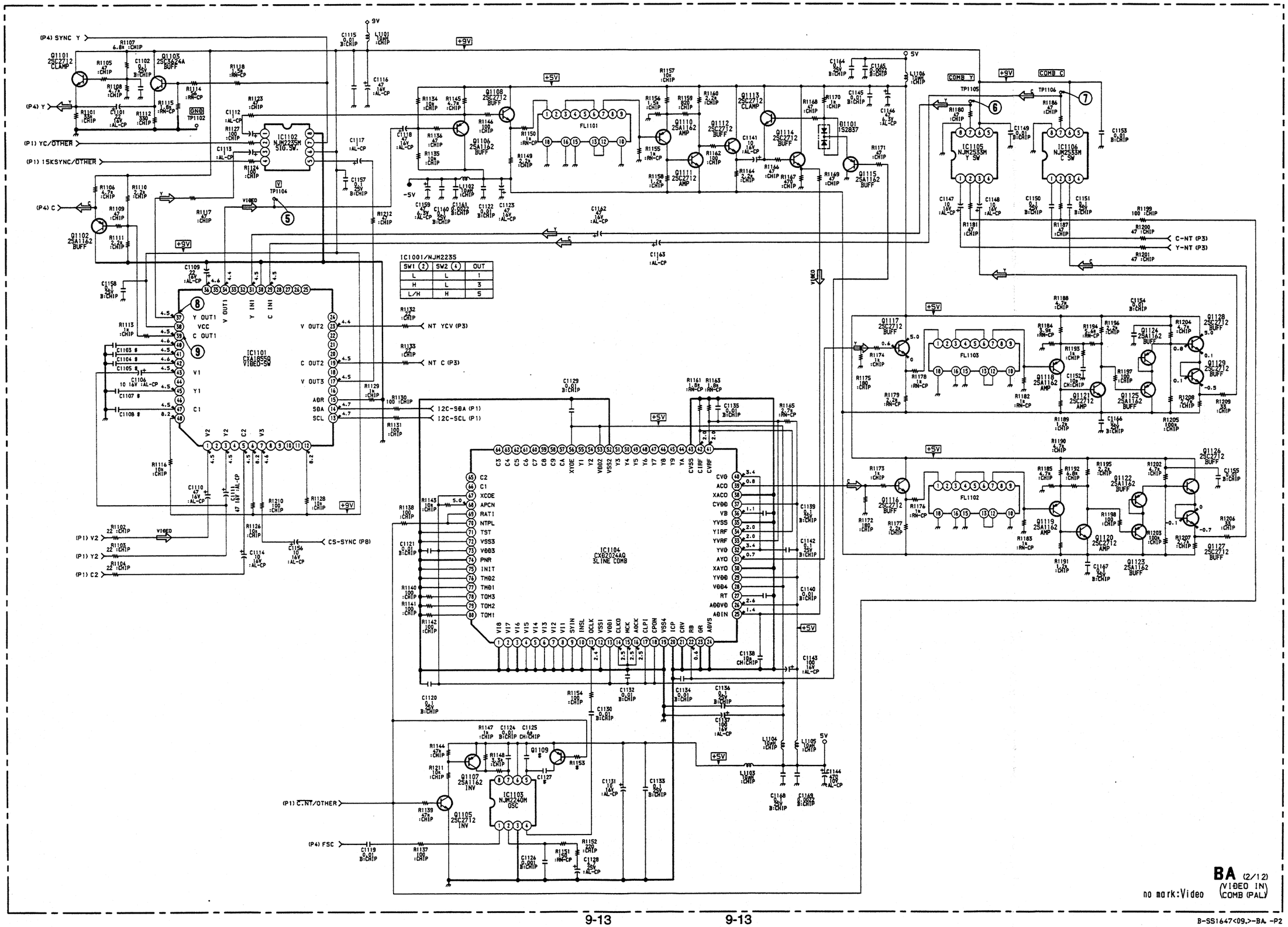
BA – A SIDE –

SUFFIX ; -11

- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

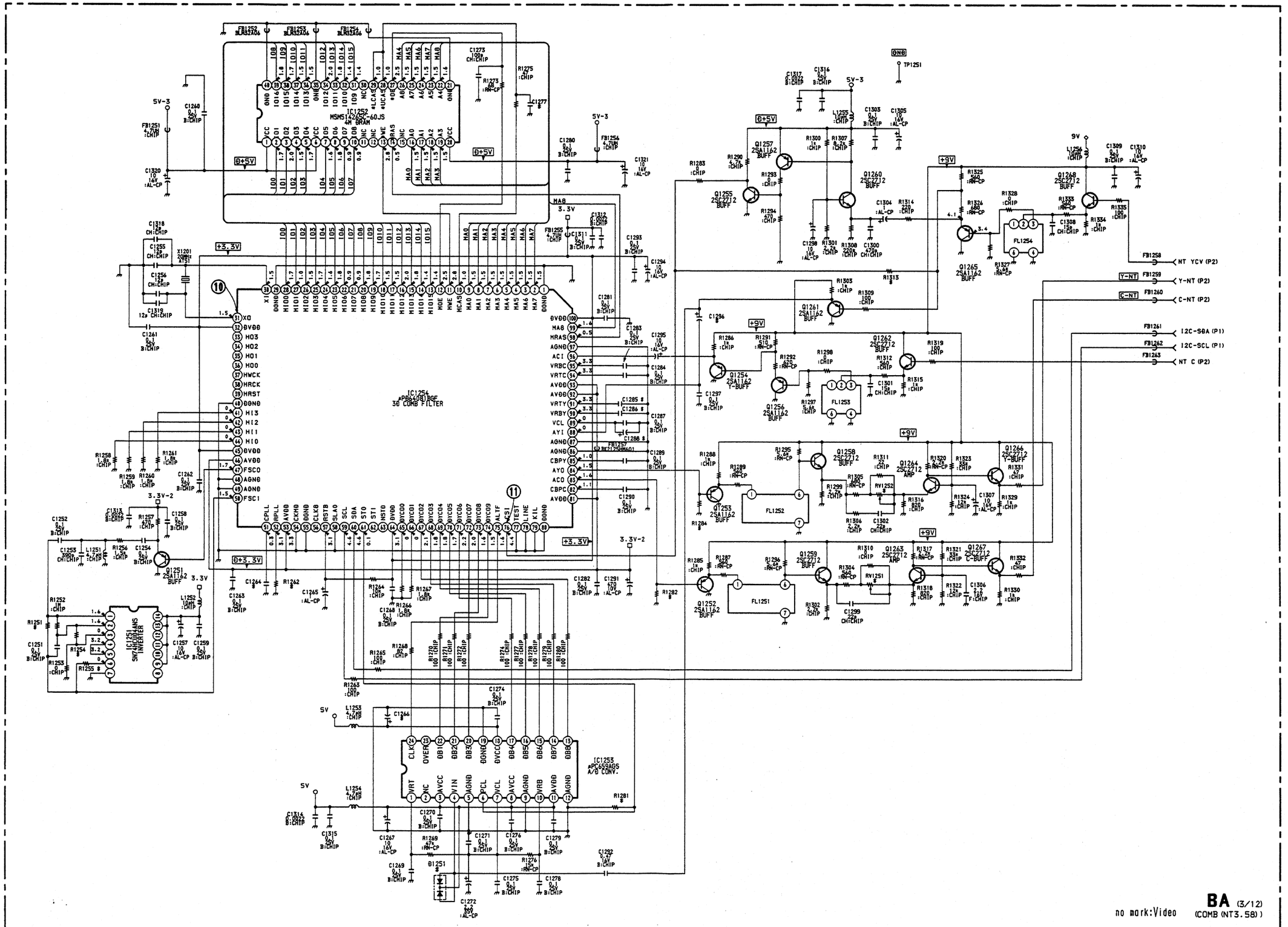


- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams



B-SS1647<09,>-BA -P2

- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

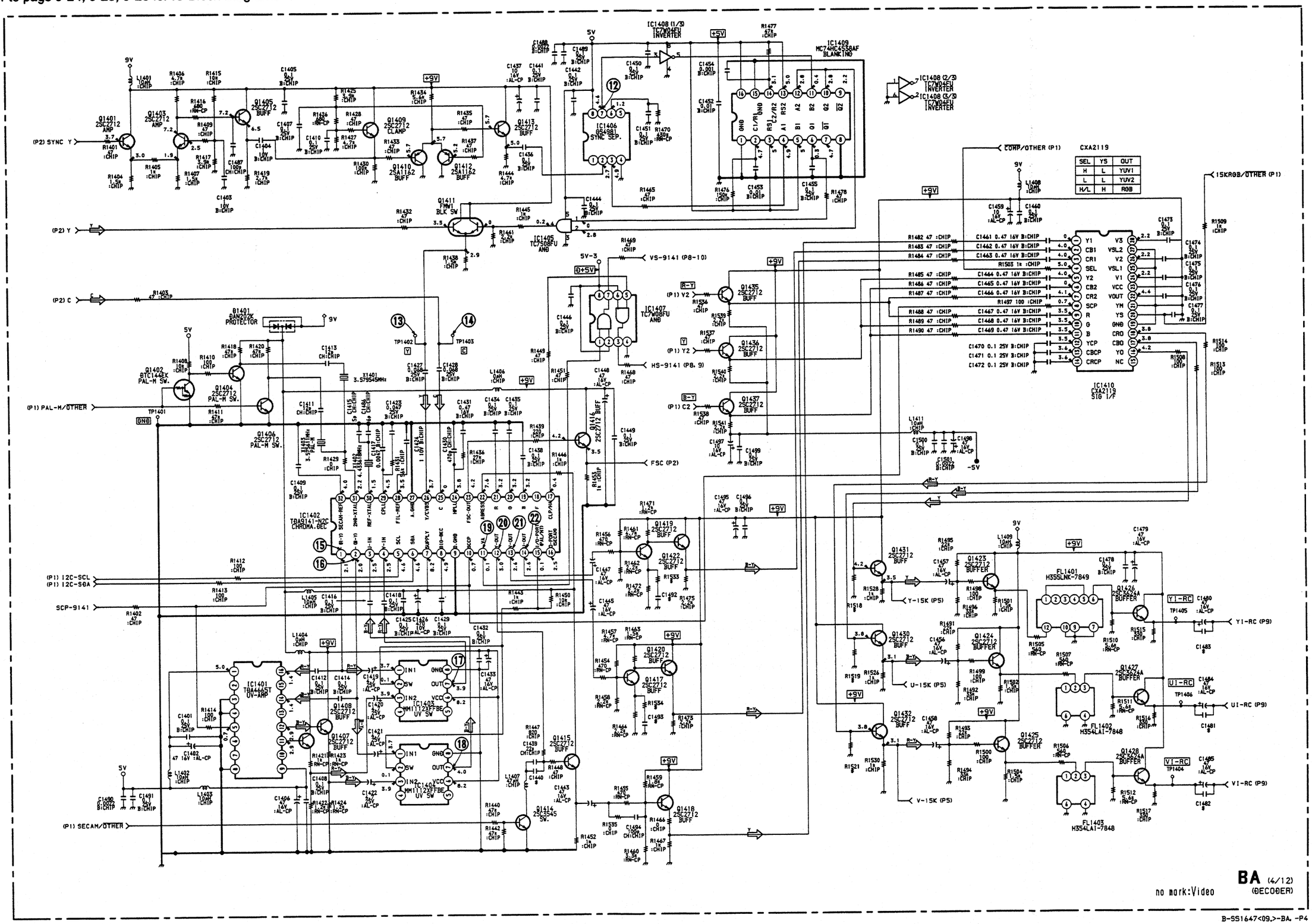


no mark:Video

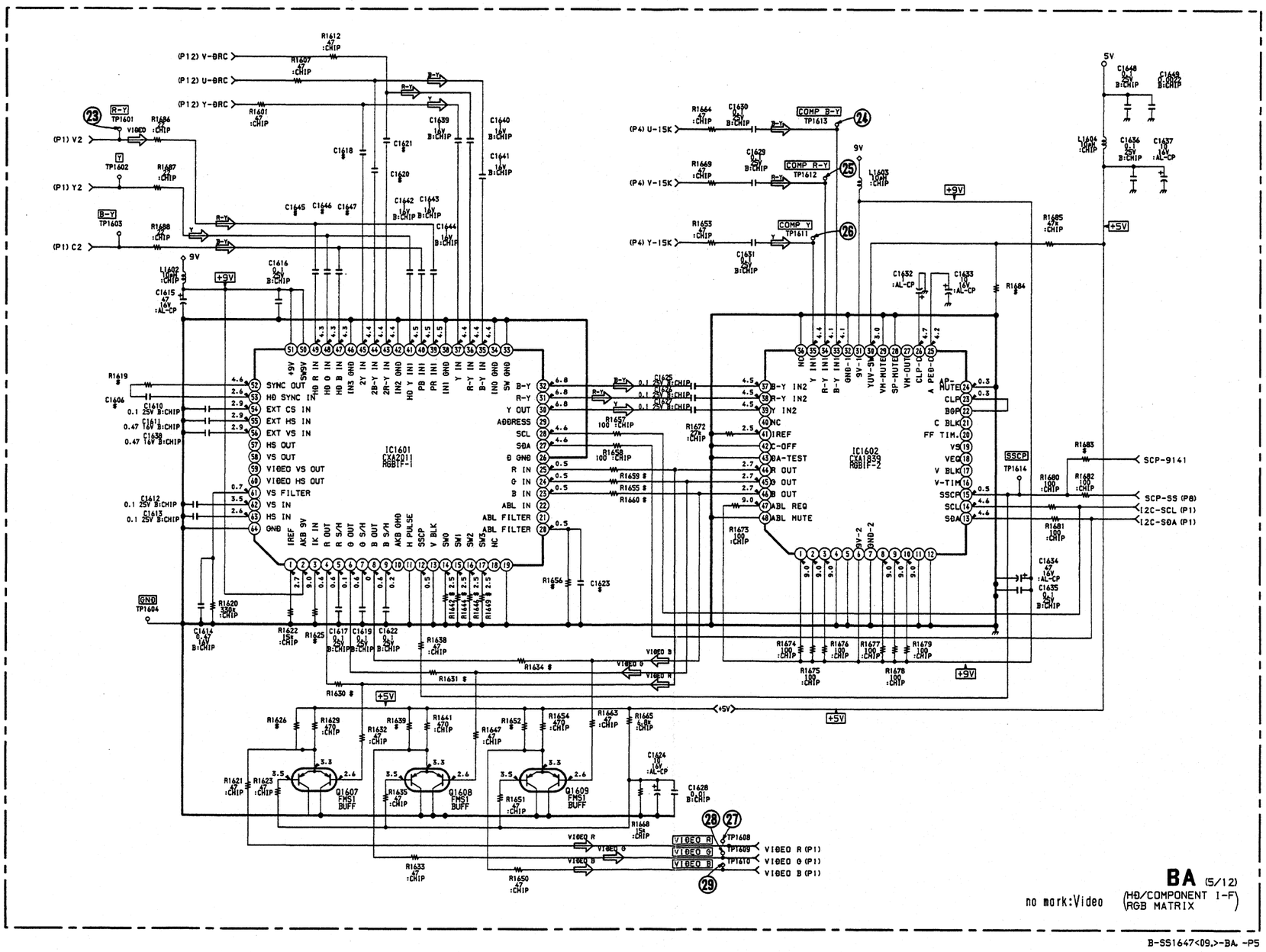
BA (3/12)
(COMB (NT3.58))

B-SS1647<09,>-BA -P3

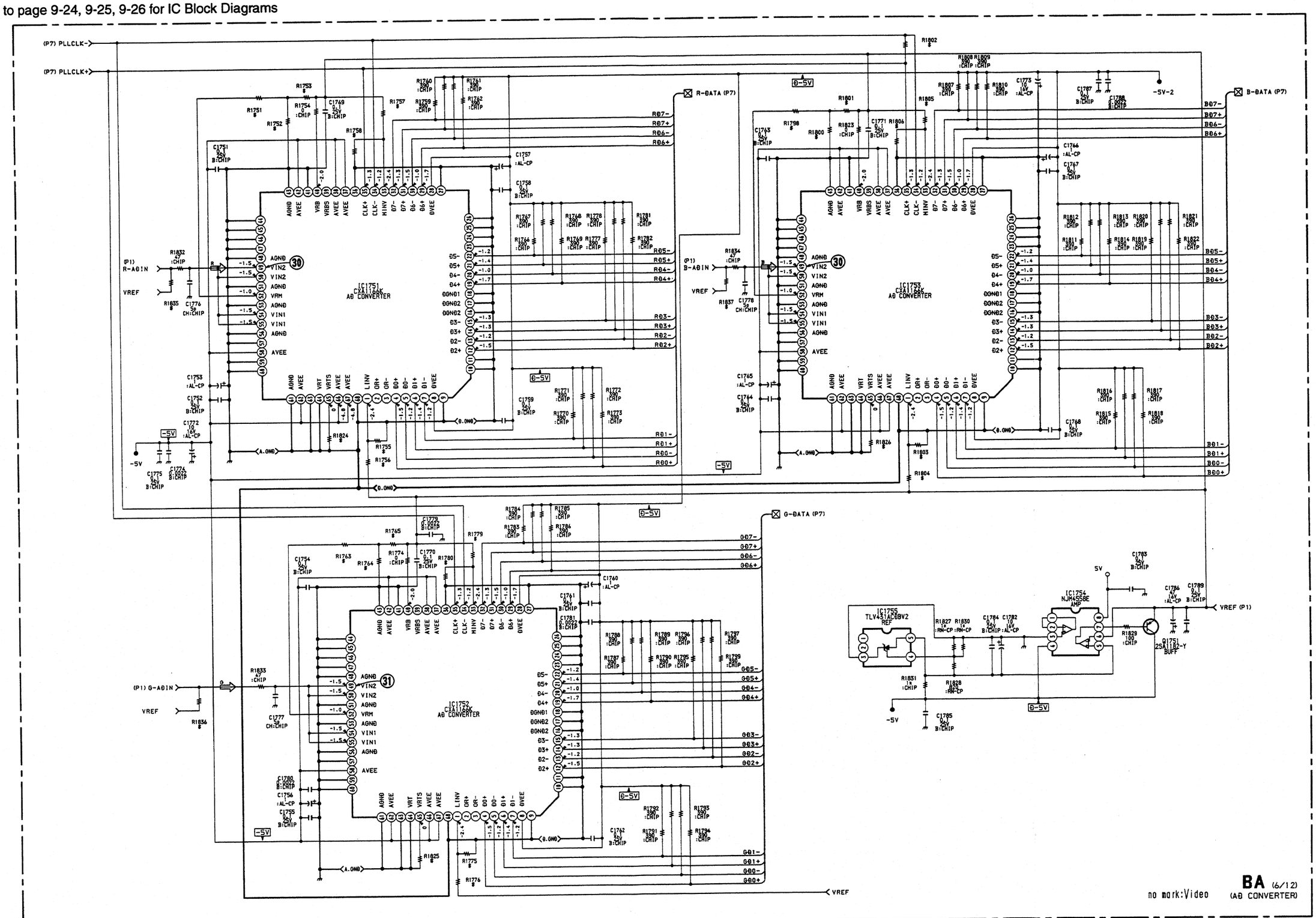
- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams



- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

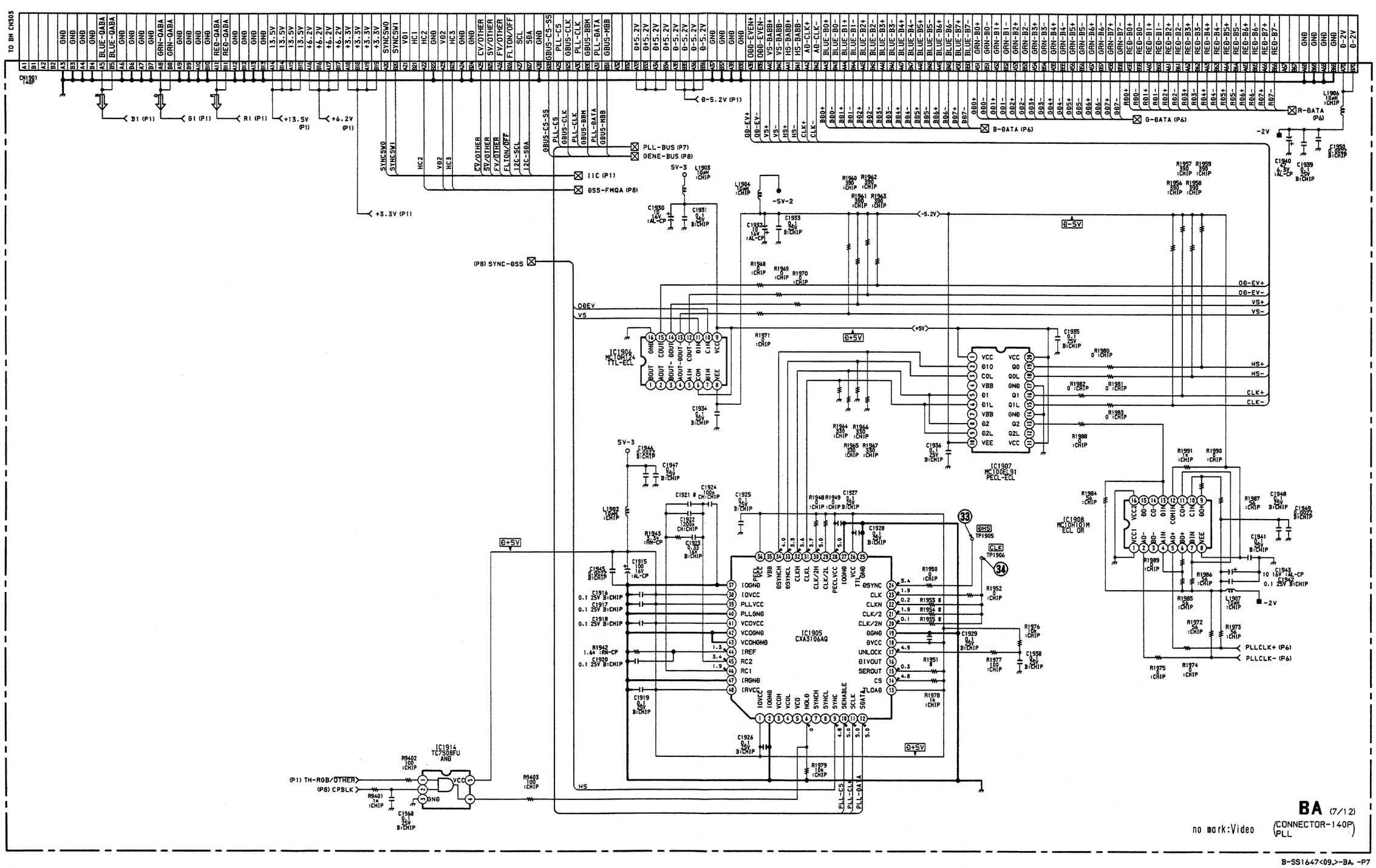


- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams



B-SS1647<09,>-BA. -P6

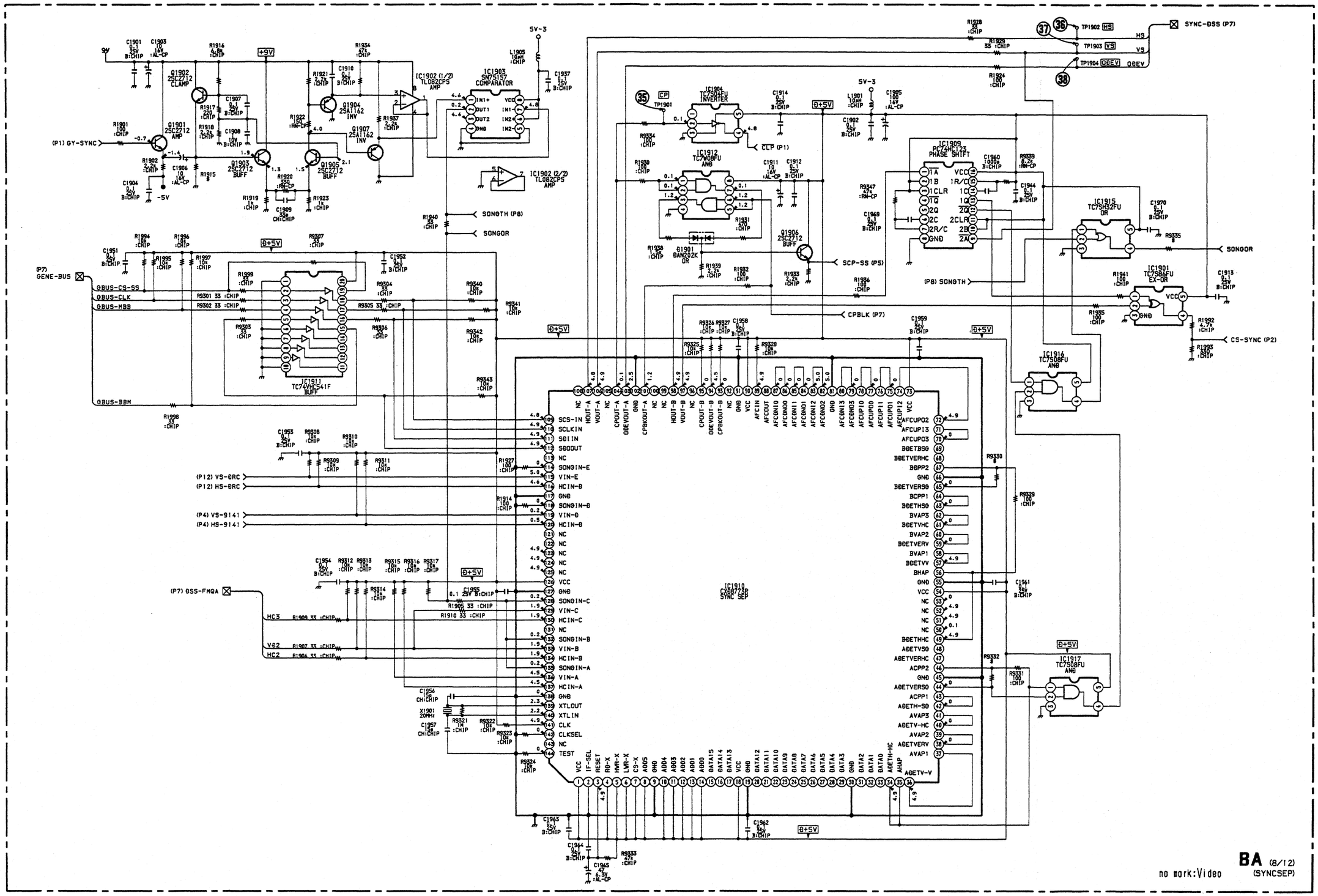
- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

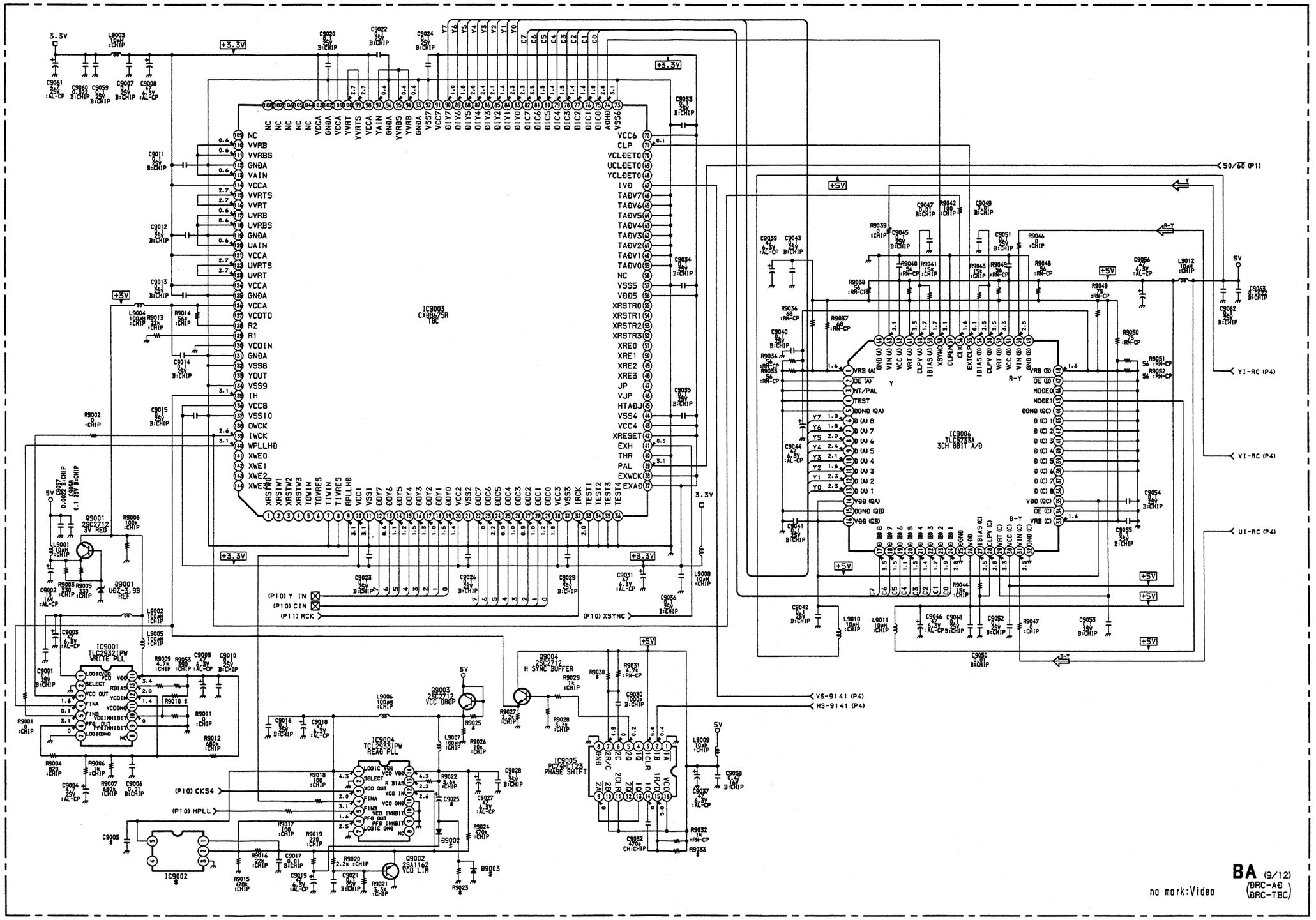


BA (7/12)
no mark:Video (CONNECTOR-140P) PLL

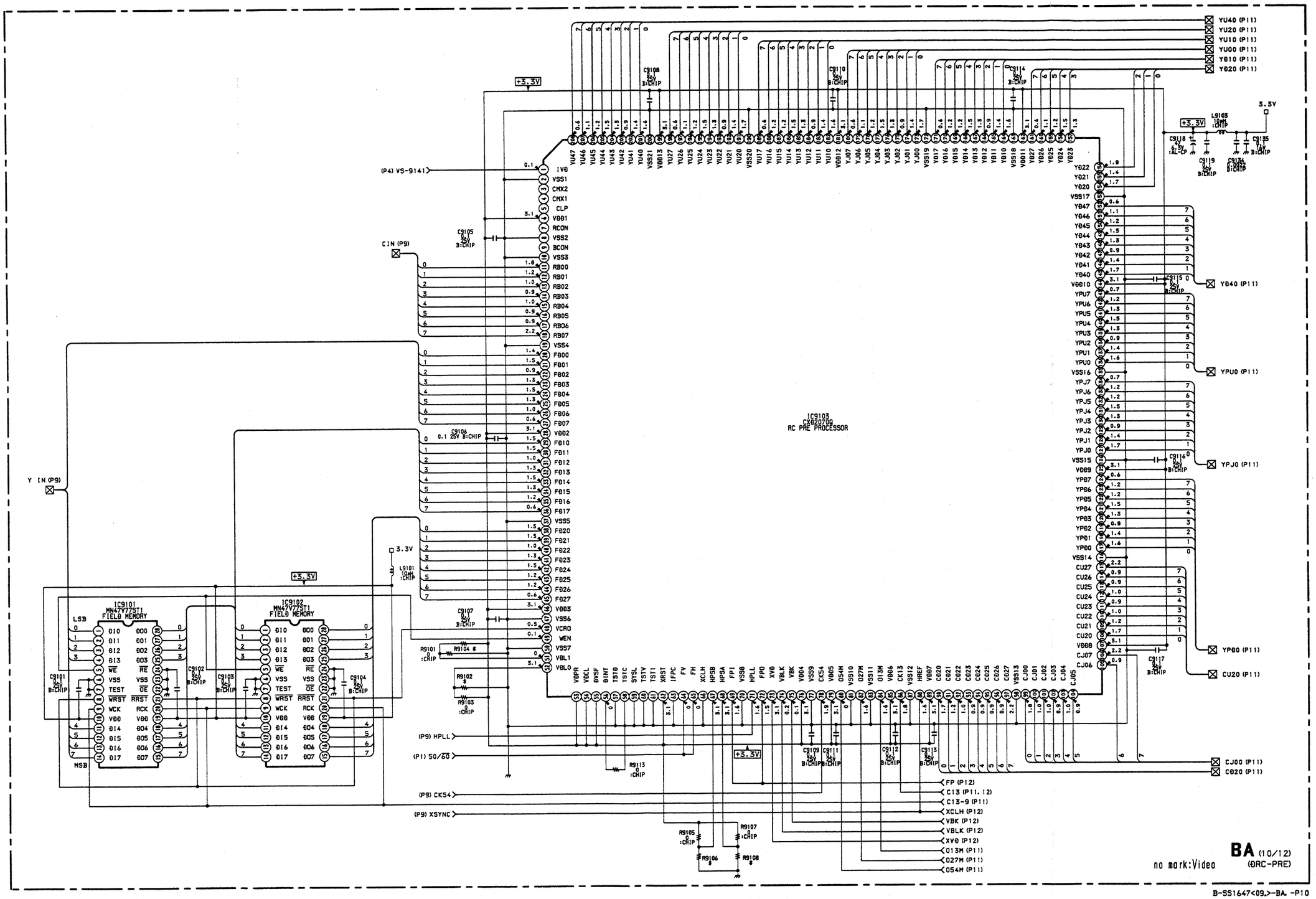
B-SS1647<09,>-BA, -P7

- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

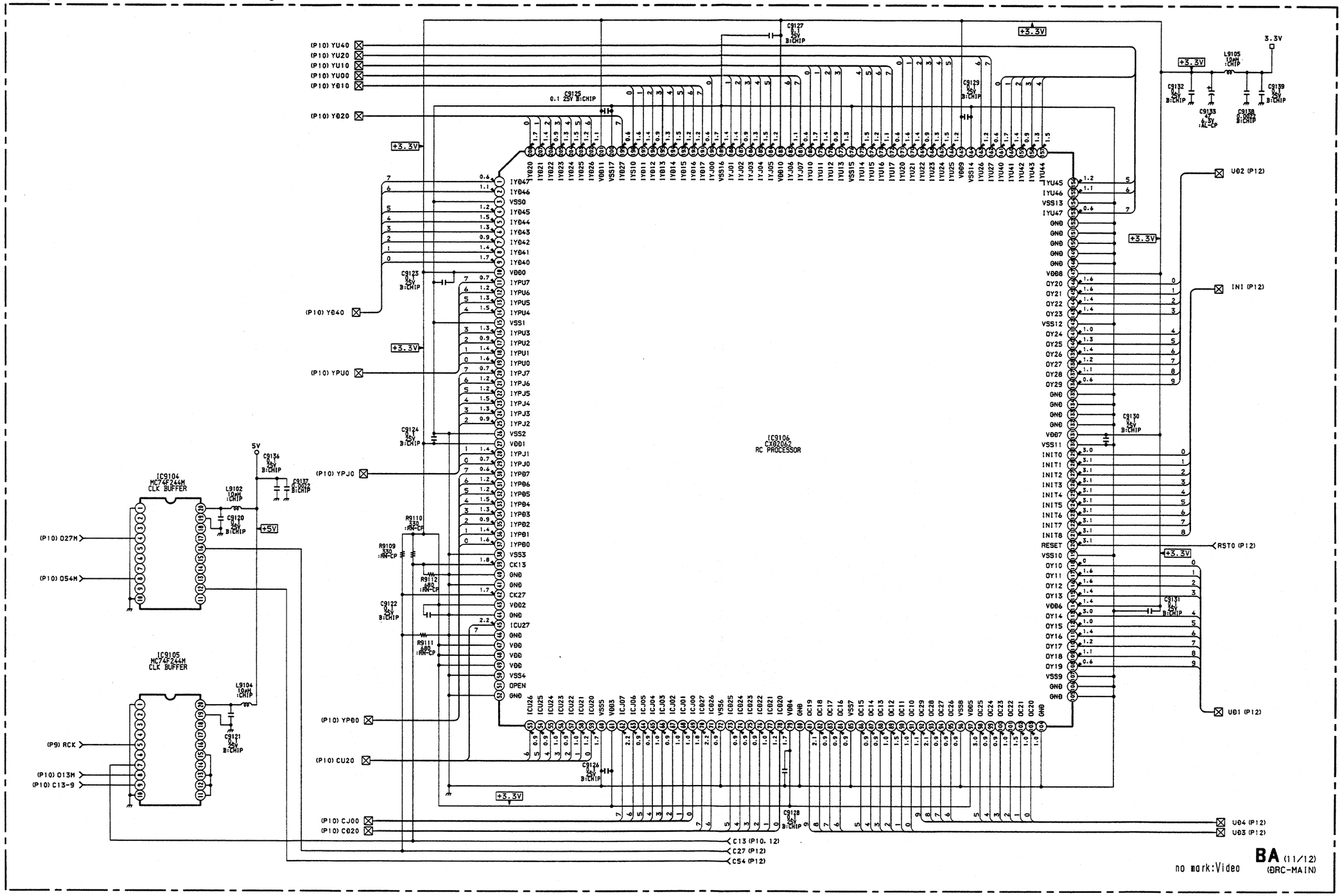




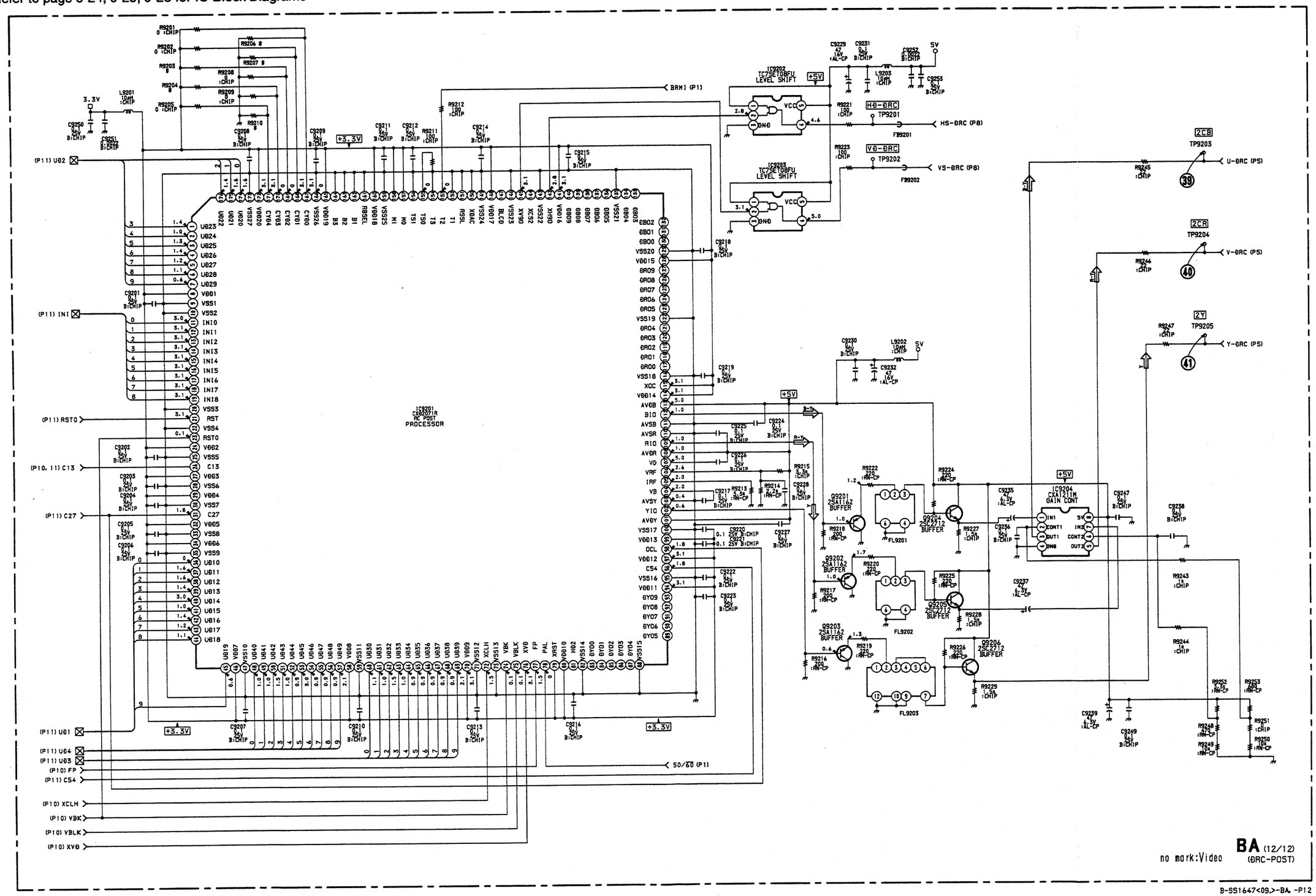
B-SS1647<09,>-BA, -P9


IC9103
CX620709
RC PRE PROCESSOR
IC9101
MN47V775T1
FIELD MEMORY
IC9102
MN47V775T1
FIELD MEMORY
C IN (P9)
Y IN (P9)
(P4) VS-9141
(P9) HPLL
(P1) 50/60
(P9) CK54
(P9) XSYNC
YU40 (P11)
YU20 (P11)
YU10 (P11)
YU00 (P11)
YB10 (P11)
YB20 (P11)
YB40 (P11)
YPU0 (P11)
YPJ0 (P11)
YP80 (P11)
CU20 (P11)
CJ00 (P11)
C020 (P11)
FP (P12)
C13 (P11, 12)
C13-9 (P11)
XCLH (P12)
VBK (P12)
VBLK (P12)
XV0 (P12)
013M (P11)
027M (P11)
054M (P11)
+3.3V
3.3V
no mark:Video
BA (10/12)
(ORC-PRE)
B-SS1647<09>-BA, -P10

- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams



- Refer to page 9-10, 9-11 for Printed Wiring Board
- Refer to page 9-24 for Waveforms
- Refer to page 9-24, 9-25, 9-26 for IC Block Diagrams

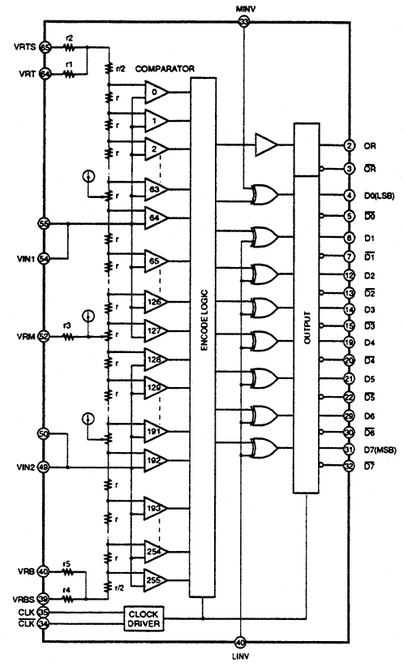


BA Board Waveforms

① 1Vp-p (H) IC1001 ③ R1 (V2)	② 0.6Vp-p (H) IC1005 ⑥ (VIDEO R)	③ 0.6Vp-p (H) IC1006 ⑥ (VIDEO G)	④ 0.6Vp-p (H) IC1007 ⑥ (VIDEO B)
⑤ 2Vp-p (H) TP1104 V (VIDEO UOT1)	⑥ 1.6Vp-p (H) TP1105 COMB Y	⑦ 1.4Vp-p (H) TP1106 COMB C	⑧ 1.6Vp-p (H) IC1101 ㊲ (Y OUT1)
⑨ 1.4Vp-p (H) IC1101 ㊴ (C OUT1)	⑩ 3.5Vp-p (V) IC1254 ㉛ (XO=20MHz)	⑪ 5Vp-p (H) IC1254 ㊻ (CSI)	⑫ 5Vp-p (H) IC1406 ⑦ (SYNC Y)
⑬ 0.8Vp-p (H) TP1402 Y	⑭ 0.7Vp-p (H) TP1403 C	⑮ 0.55Vp-p (H) IC1402 ① (R-Y)	⑯ 0.7Vp-p (H) IC1402 ② (B-Y)
⑰ 1.1Vp-p (H) IC1403 ⑦ (R-Y OUT)	⑱ 1.4Vp-p (H) IC1404 ⑦ (B-Y)	⑲ 5Vp-p (H) IC1402 ⑪ (VA)	⑳ 1.1Vp-p (H) IC1402 ⑫ (Y OUT)
㉑ 0.96Vp-p (H) IC1402 ⑬ (V OUT)	㉒ 1.2Vp-p (H) IC1402 ⑭ (U OUT)	㉓ 1Vp-p (H) TP1601 R-Y	㉔ 1Vp-p (H) TP1613 COMP B-Y
㉕ 1Vp-p (H) TP1612 COMP R-Y	㉖ 1.5Vp-p (H) TP1611 (COMP Y)	㉗ 0.6Vp-p (H) TP1608 VIDEO R	㉘ 0.6Vp-p (H) TP1609 VIDEO B
㉙ 0.6Vp-p (H) TP1610 VIDEO B	㉚ 1.5Vp-p (H) IC1751 ㊾ (R-AD IN)	㉛ 1.5Vp-p (H) IC1752 ㊾ (G-AD IN)	㉜ 1.5Vp-p (H) IC1753 ㊾ (B-AD IN)
㉝ 3.8Vp-p (H) TP1905 DHS	㉞ 8Vp-p (H) TP1906 CLK	㉟ 4.8Vp-p (H) TP1901 CP	㊱ 5Vp-p (H) TP1902 HS
㊲ 5Vp-p (H) TP1903 VS	㊳ 5Vp-p (V) TP1904 ODE V	㊴ 0.8Vp-p (H) TP9203 2CB	㊵ 0.65Vp-p (H) TP9204 2CR
㊶ 0.6Vp-p (H) TP9205 2Y			

BA Board IC Block Diagrams

CXA1166K (IC1751 – 1753)



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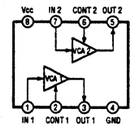

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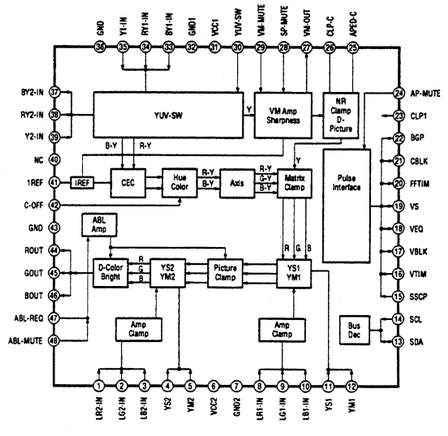

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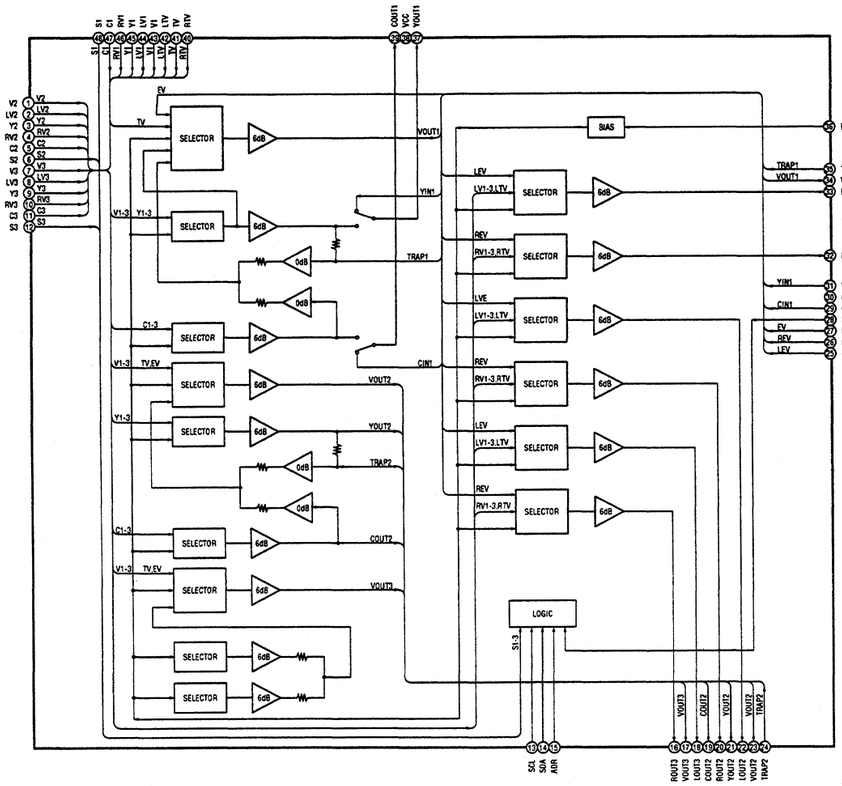

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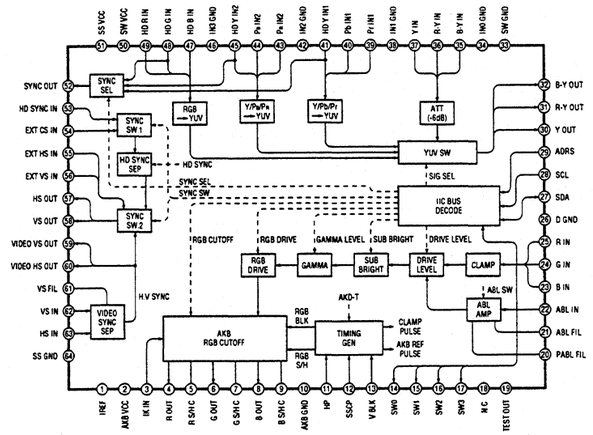

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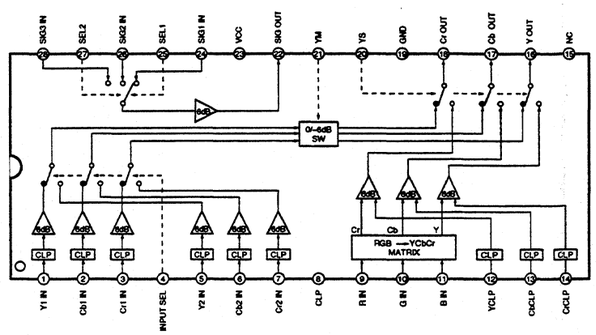
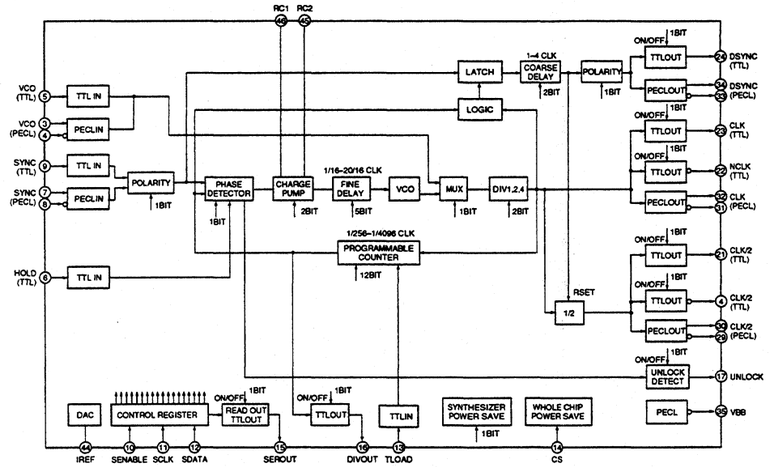


CXA3106AQ (IC1905)



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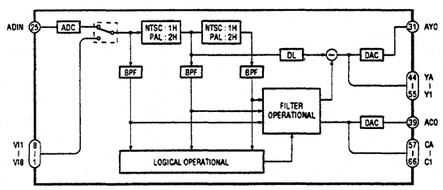
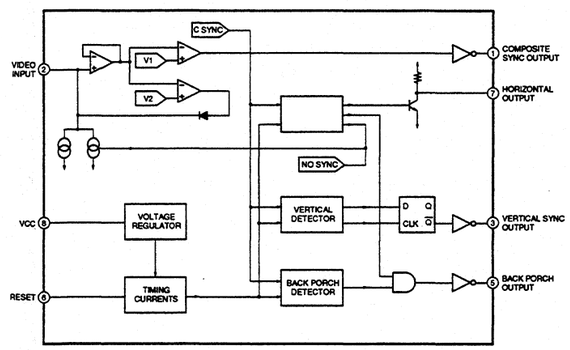
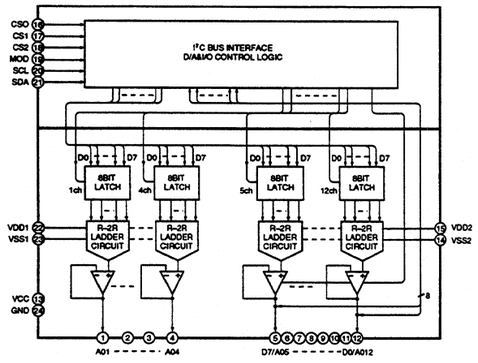


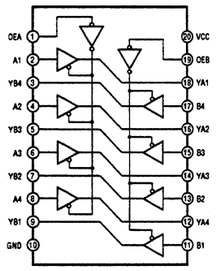
GS4981CTA (IC1406)



MB88141APFV-ER (IC1004, 1008)



MC74F244MEL (IC9104, 9105)



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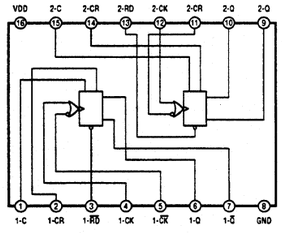

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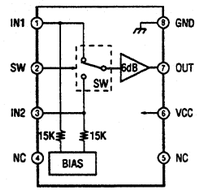

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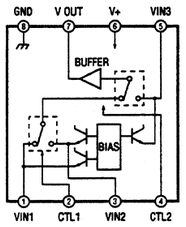

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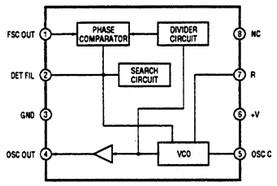

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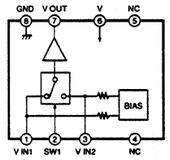

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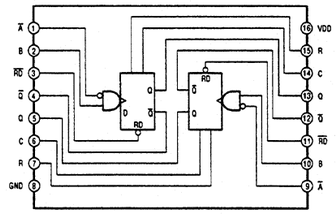

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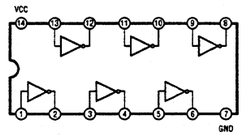

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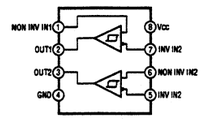

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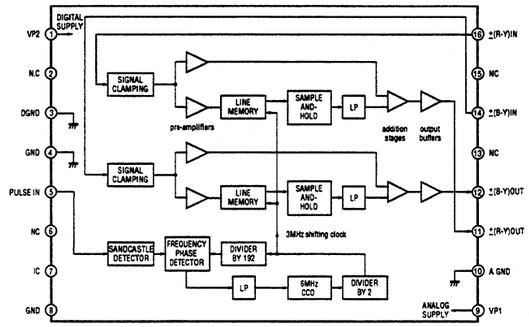

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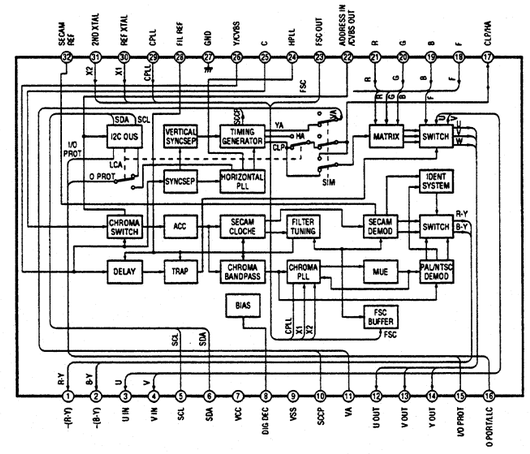

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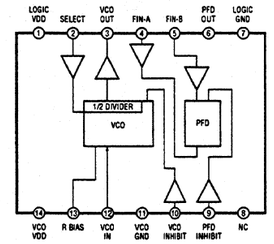

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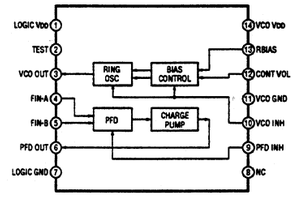

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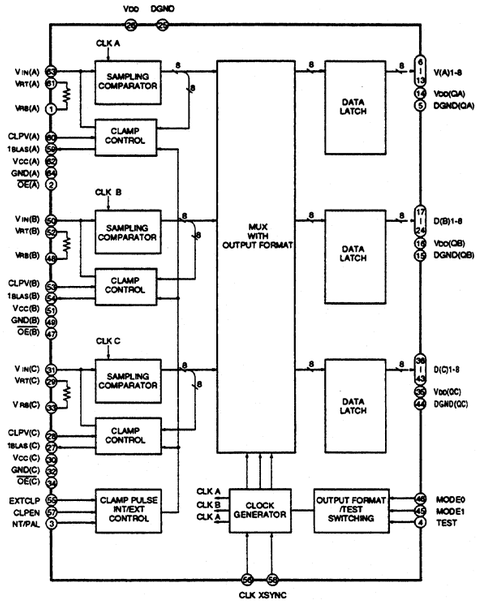

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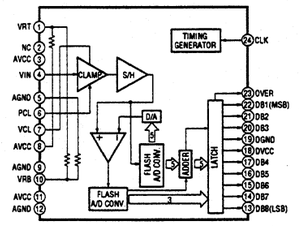
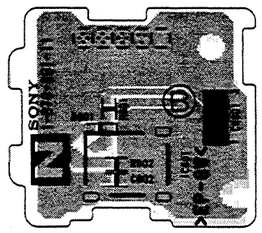
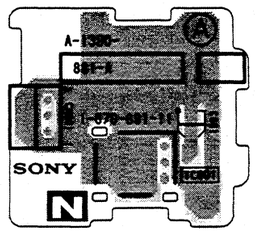




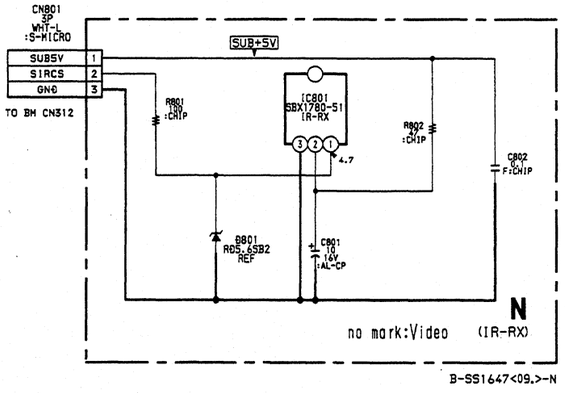
N – B SIDE –

SUFFIX ; -11

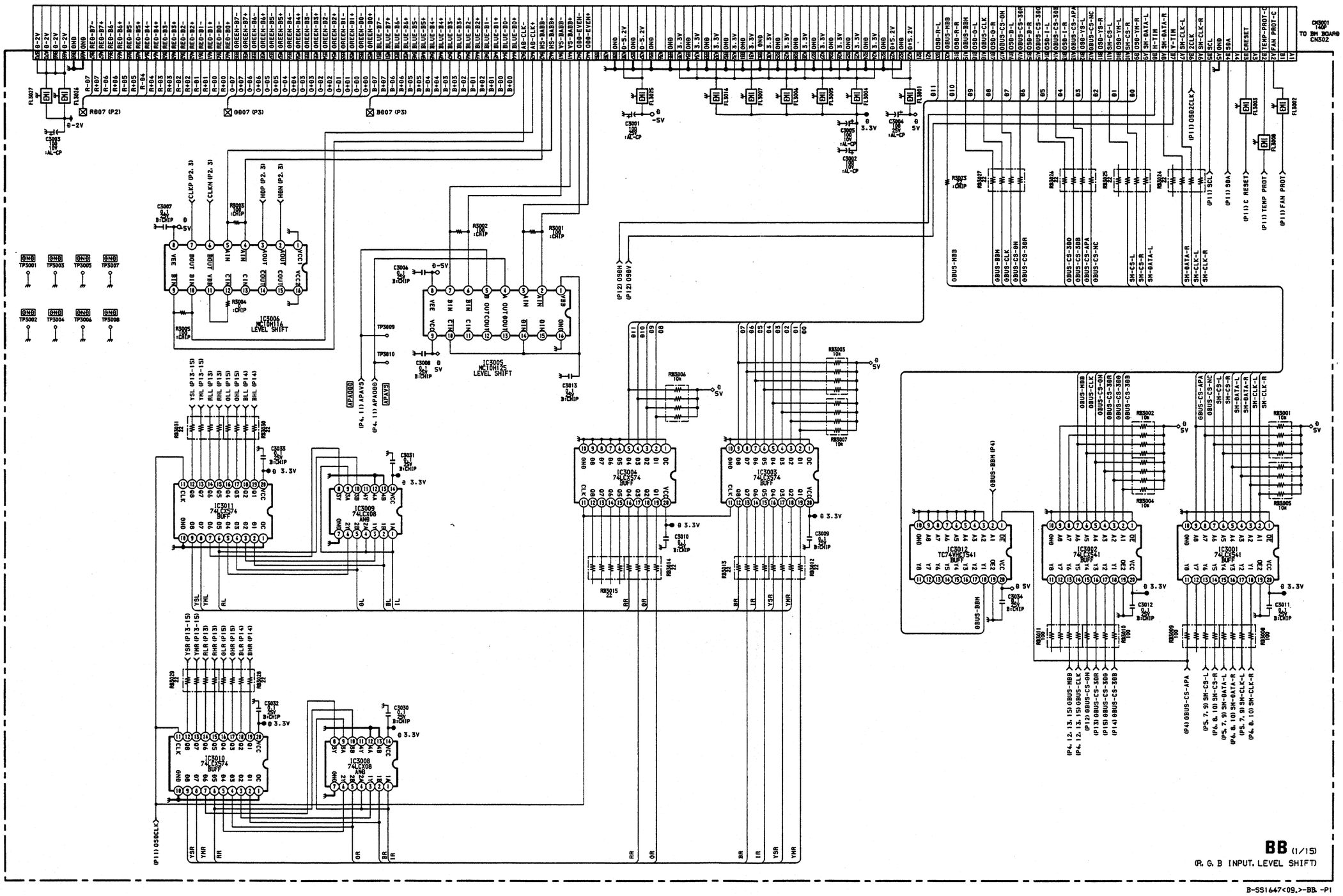


N – A SIDE –

SUFFIX ; -11



• Refer to page 9-28, 9-29 for Printed Wiring Board



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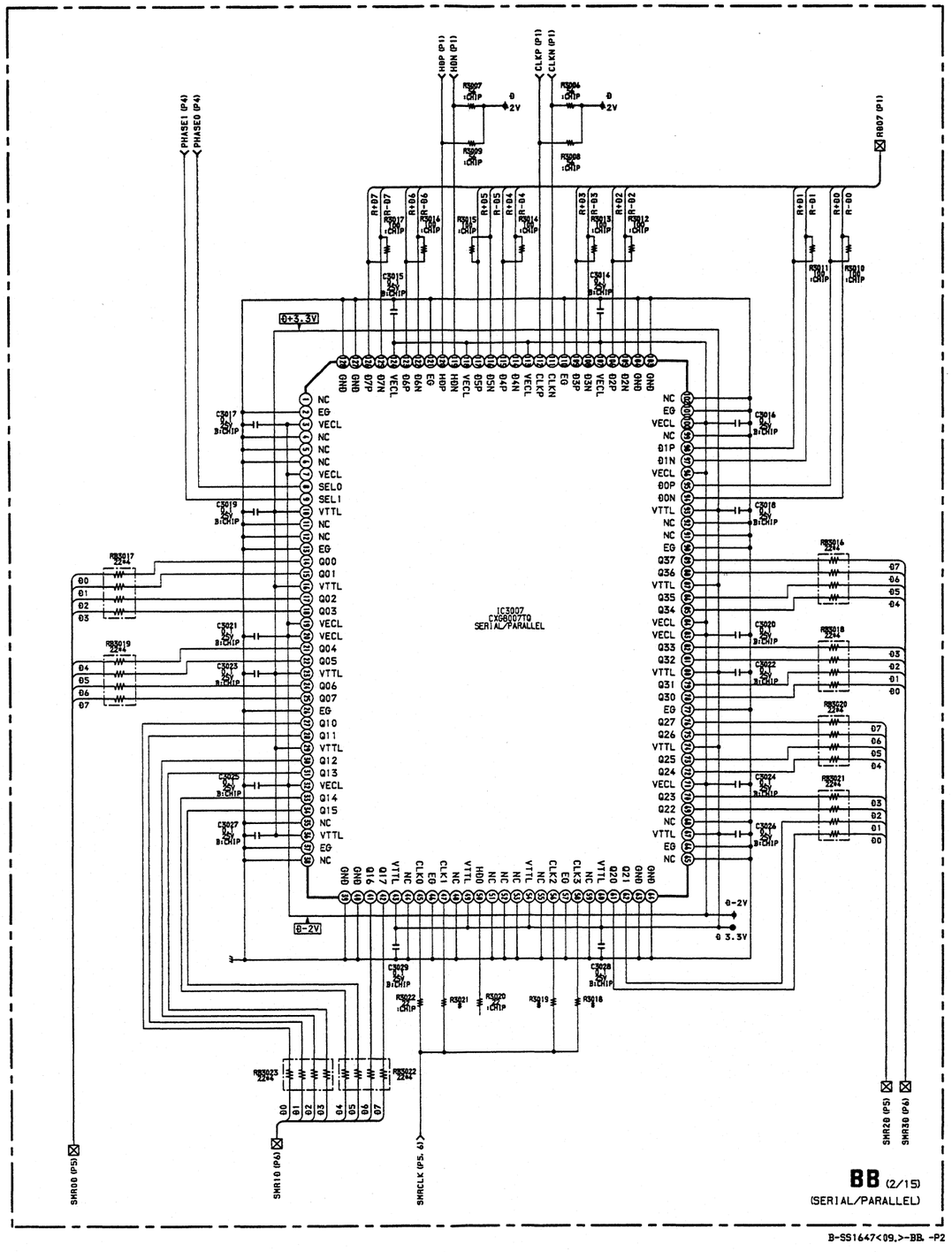
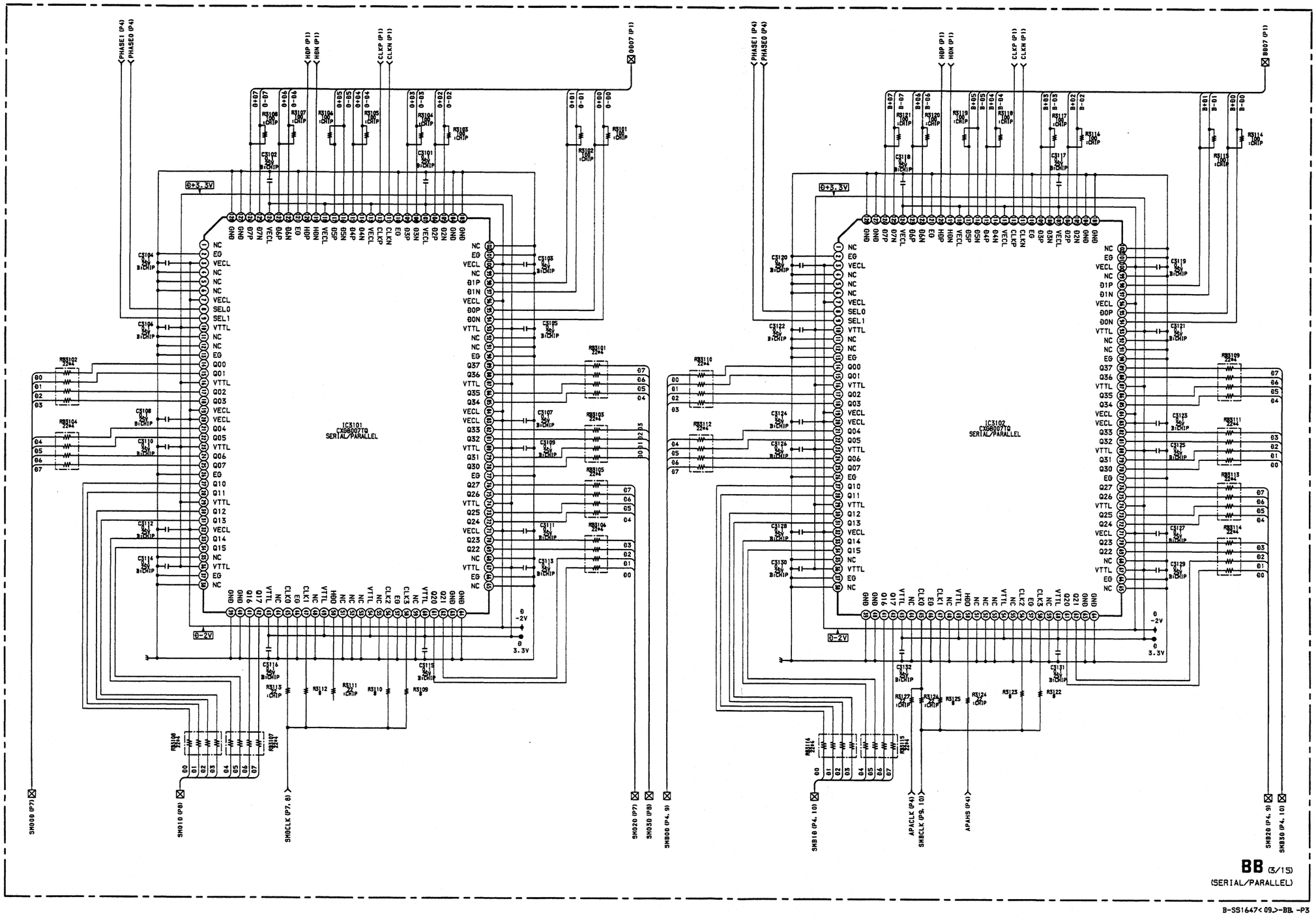
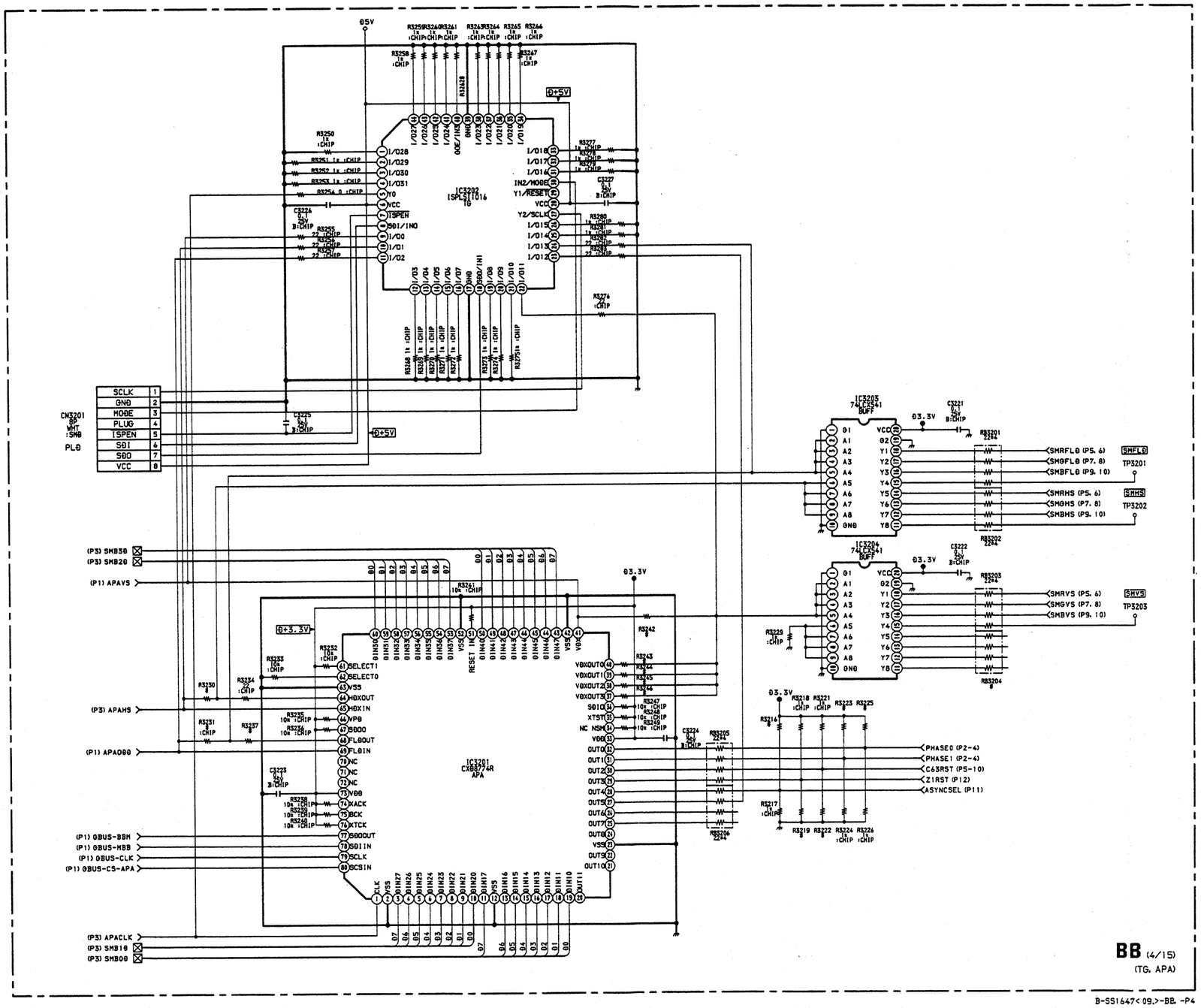


• Refer to page 9-28, 9-29 for Printed Wiring Board



B-SS1647<09>-BB -P3

• Refer to page 9-28, 9-29 for Printed Wiring Board



BB (4/15)
(TG. APA)

B-SS1647< 09.>-BB. -P4

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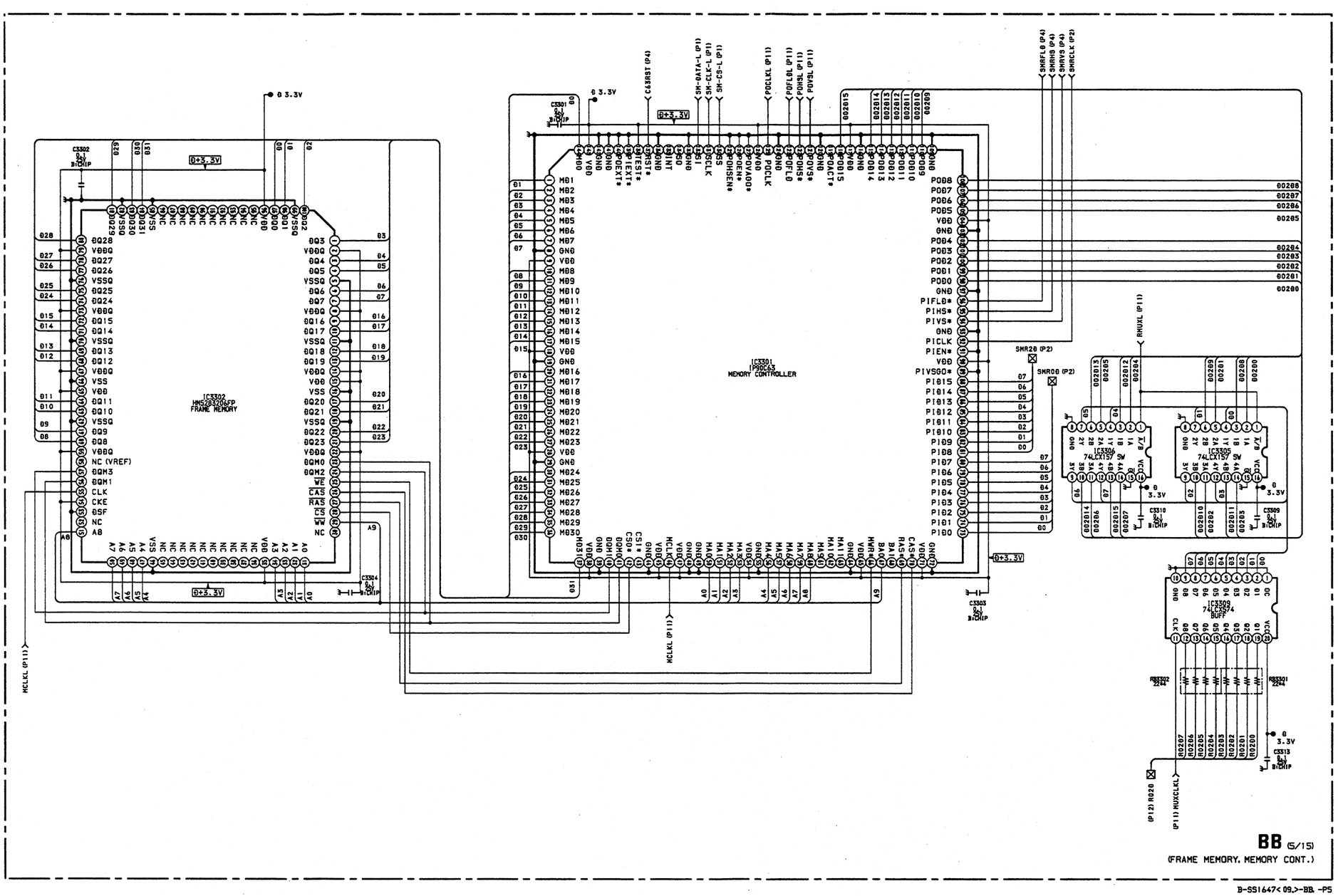

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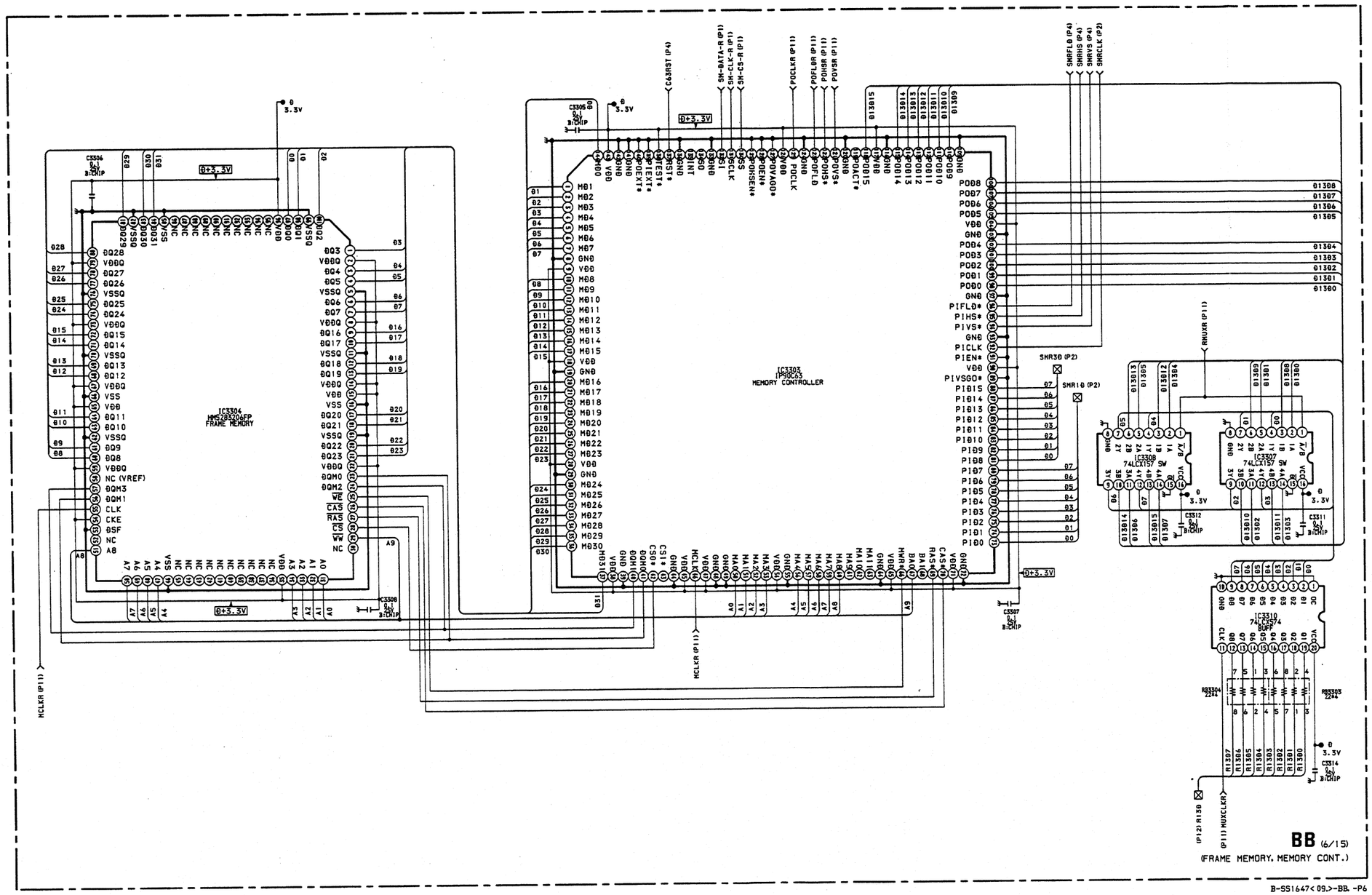

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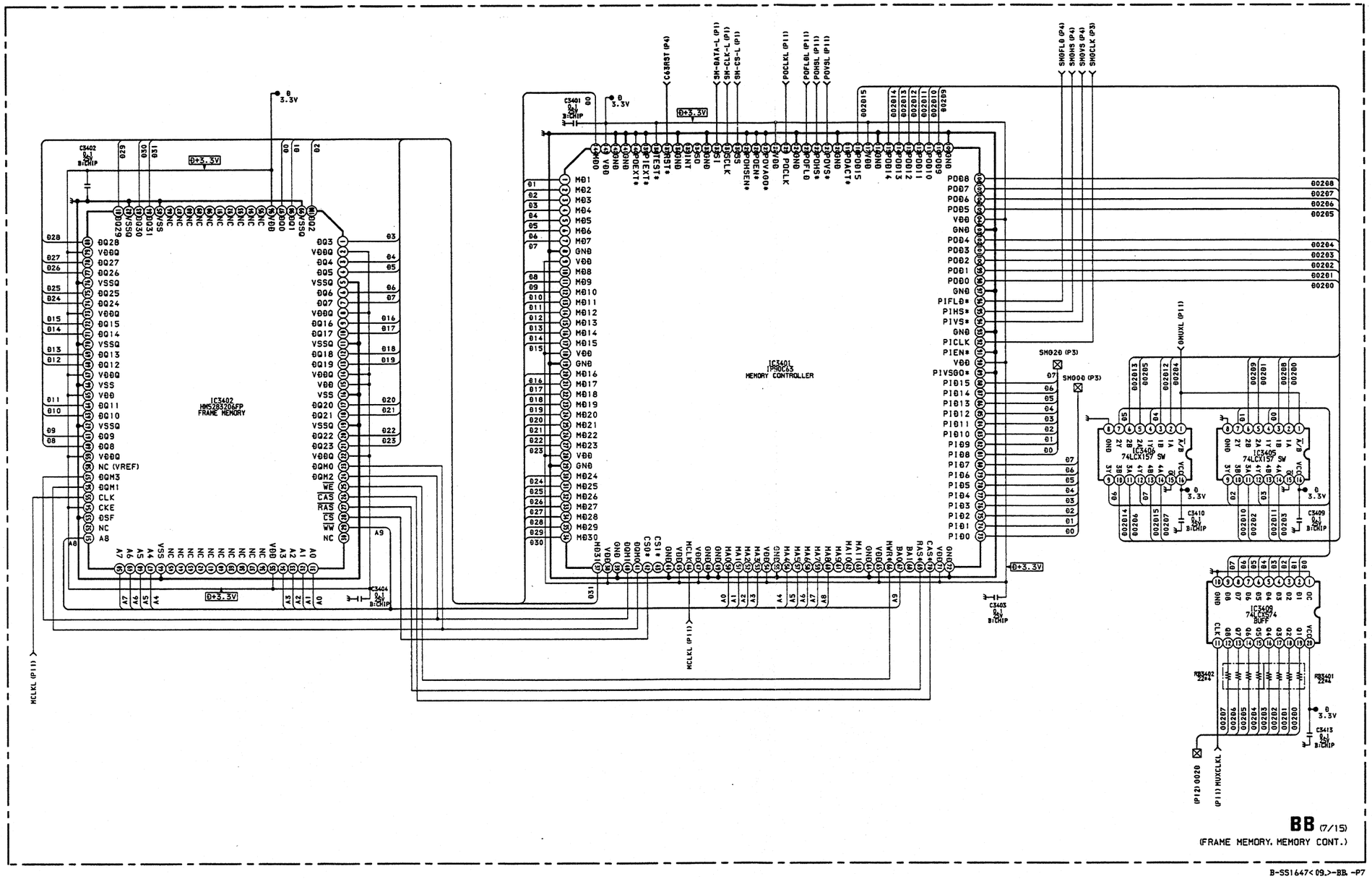

BB (7/15)
(FRAME MEMORY, MEMORY CONT.)

B-SS1647<09.>-BB. -P7

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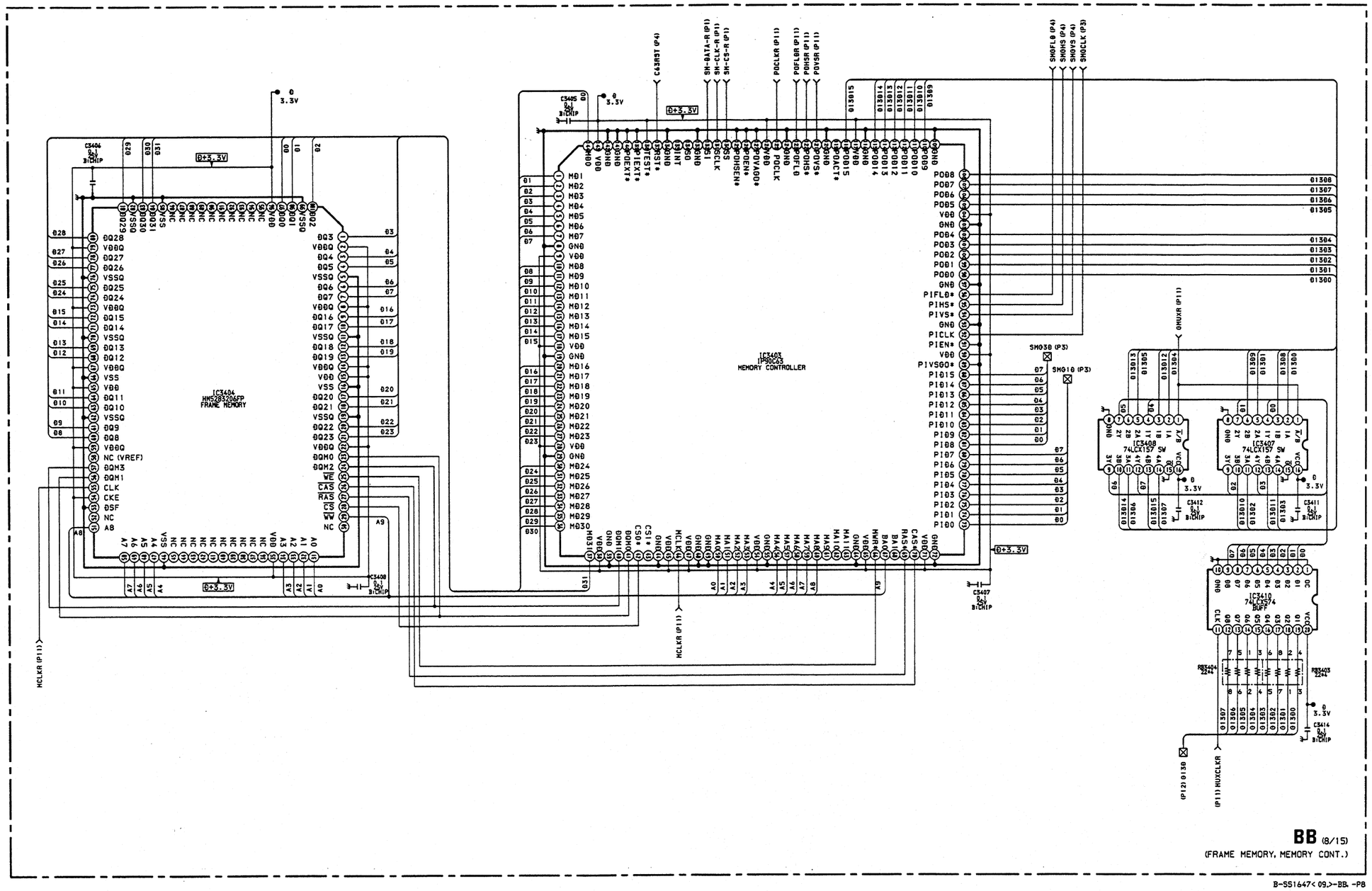

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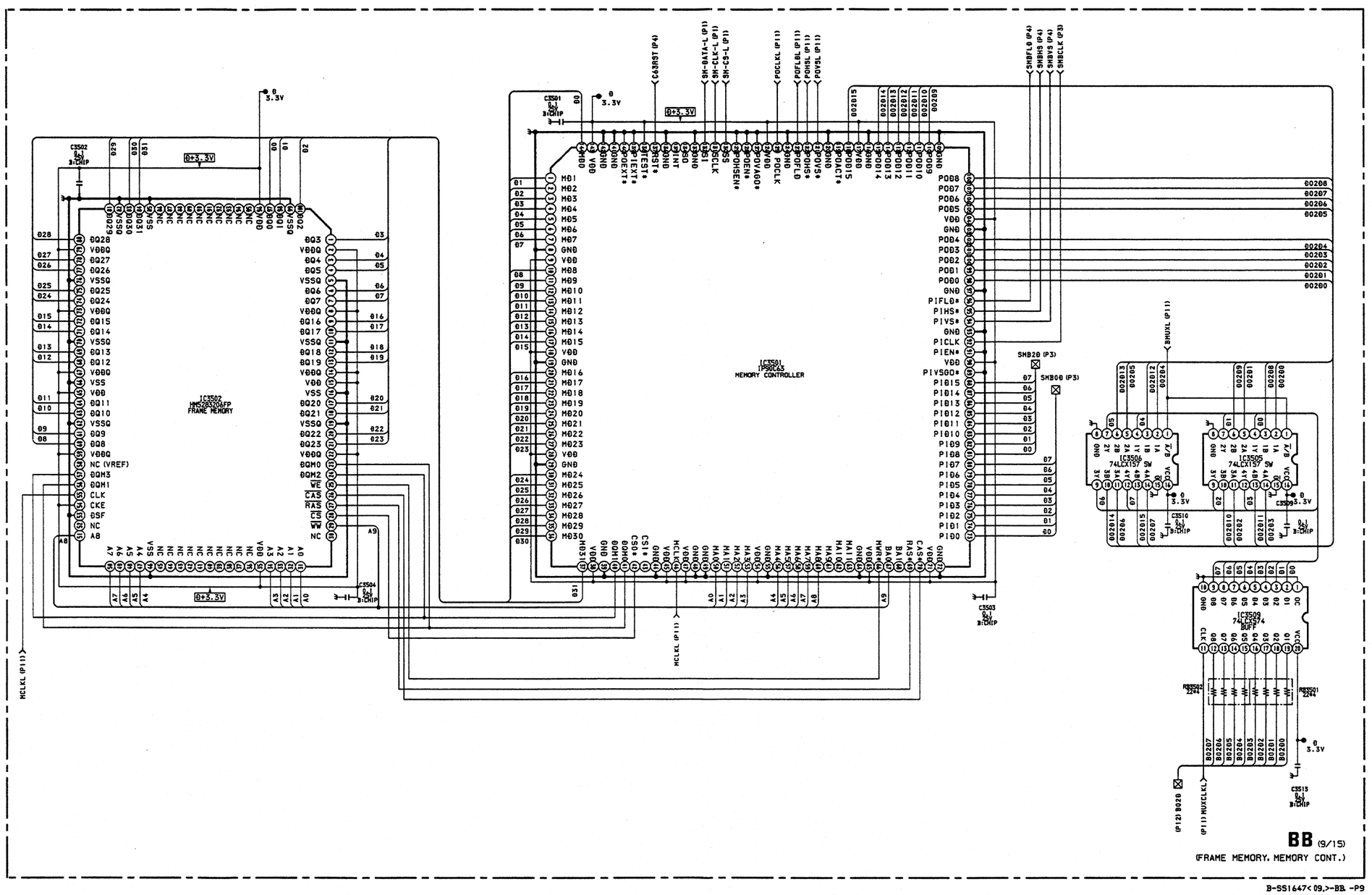

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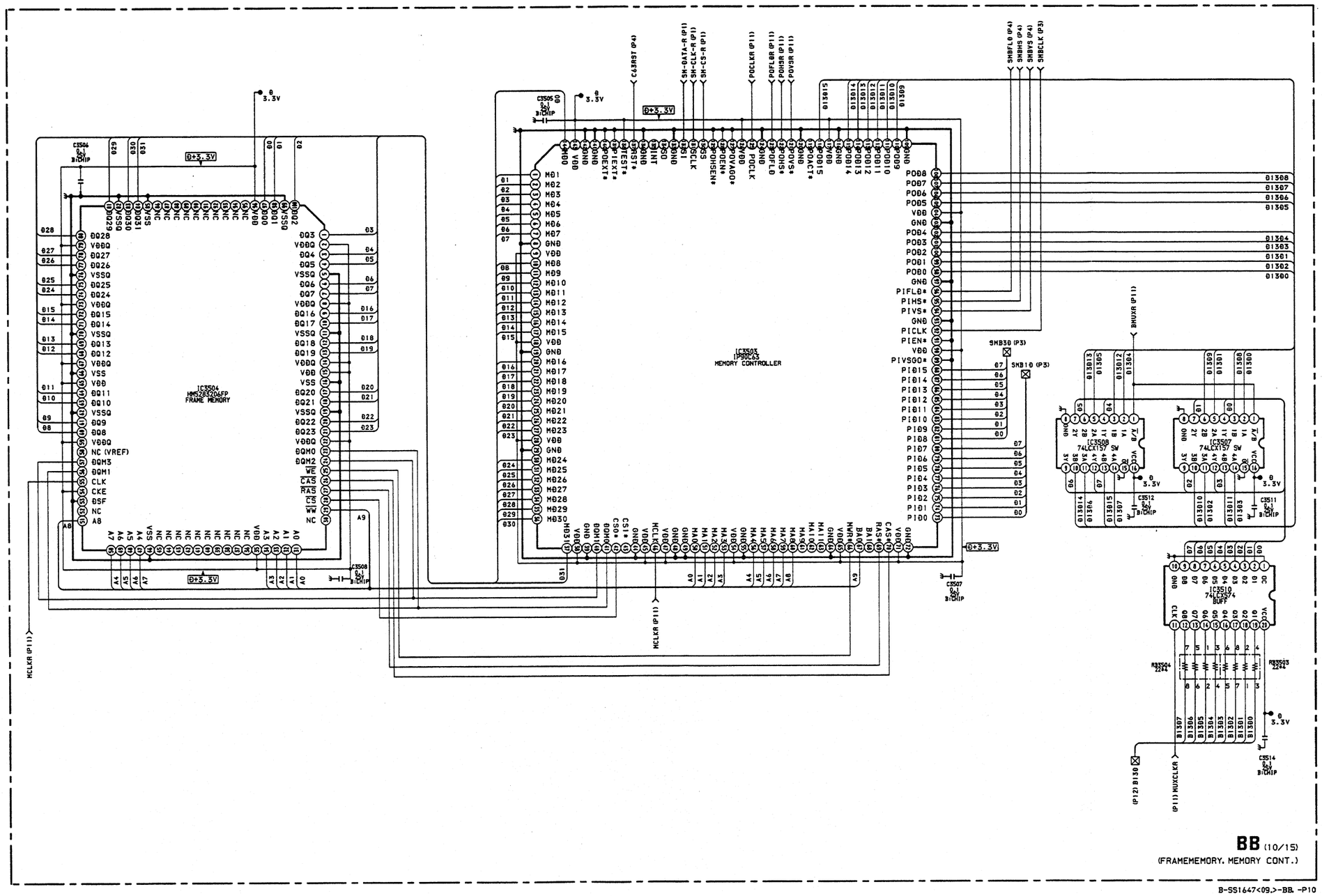

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(FRAMEMEMORY, MEMORY CONT.)

B-SS1647<09.>-BB. -P10

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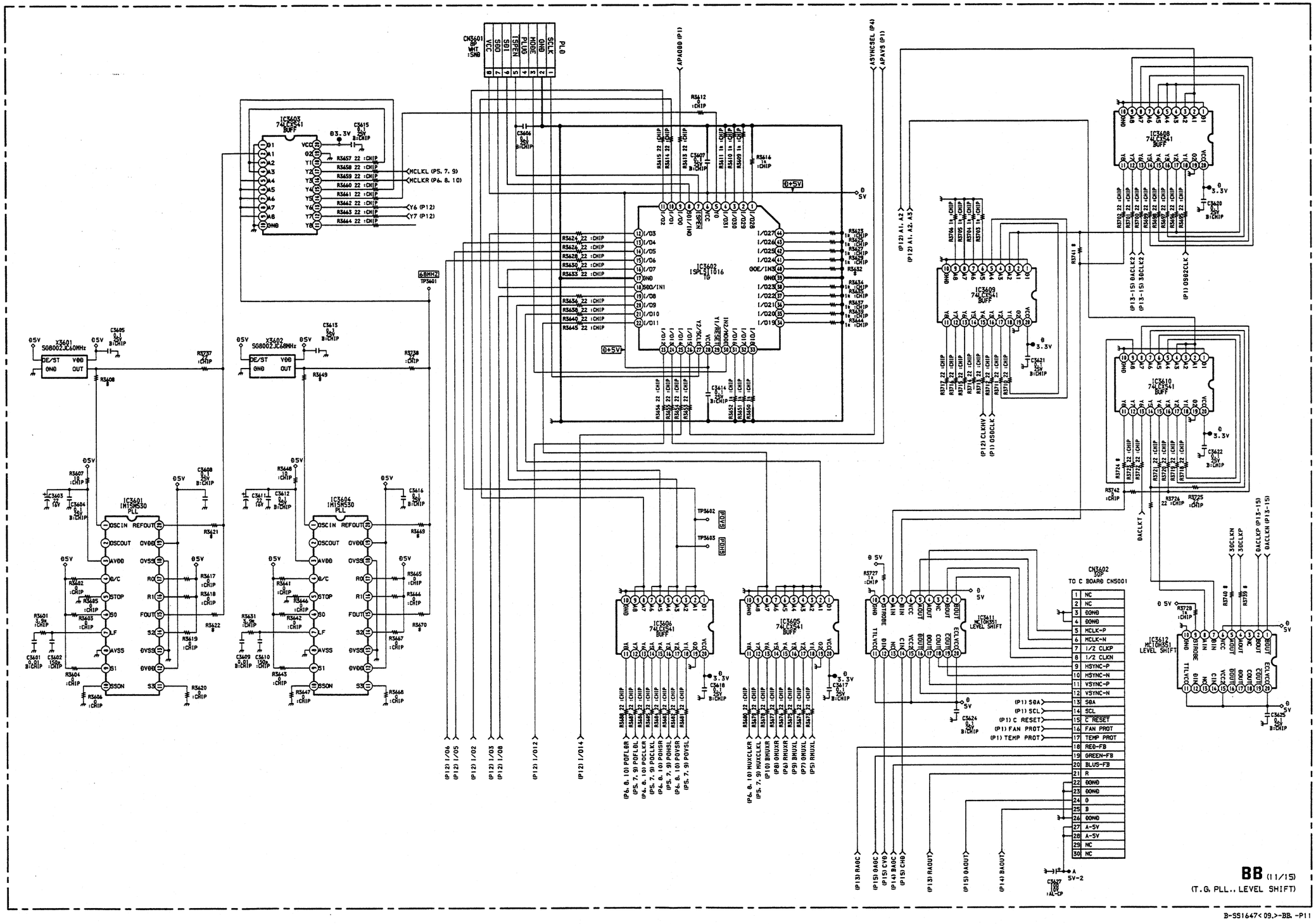

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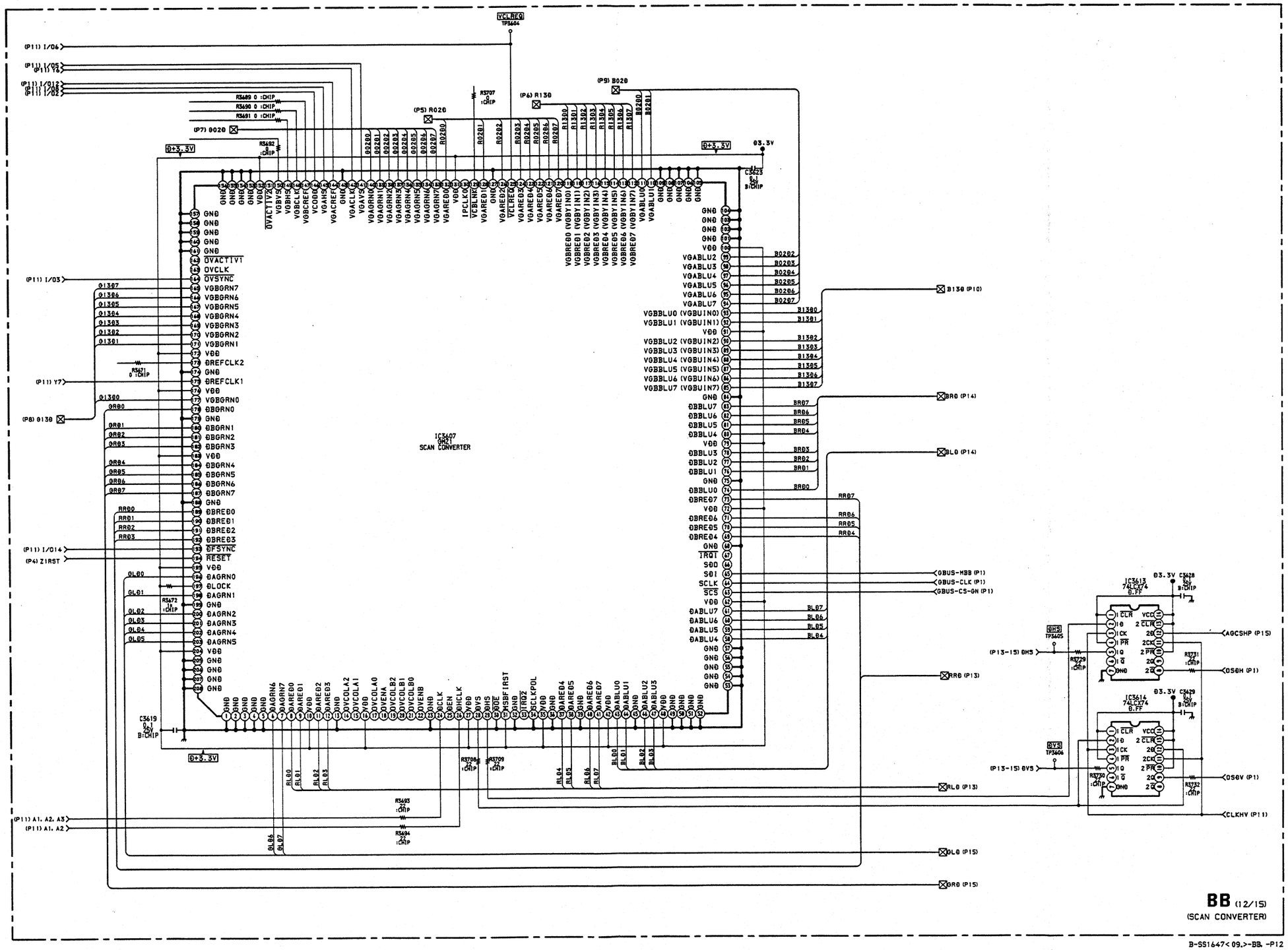

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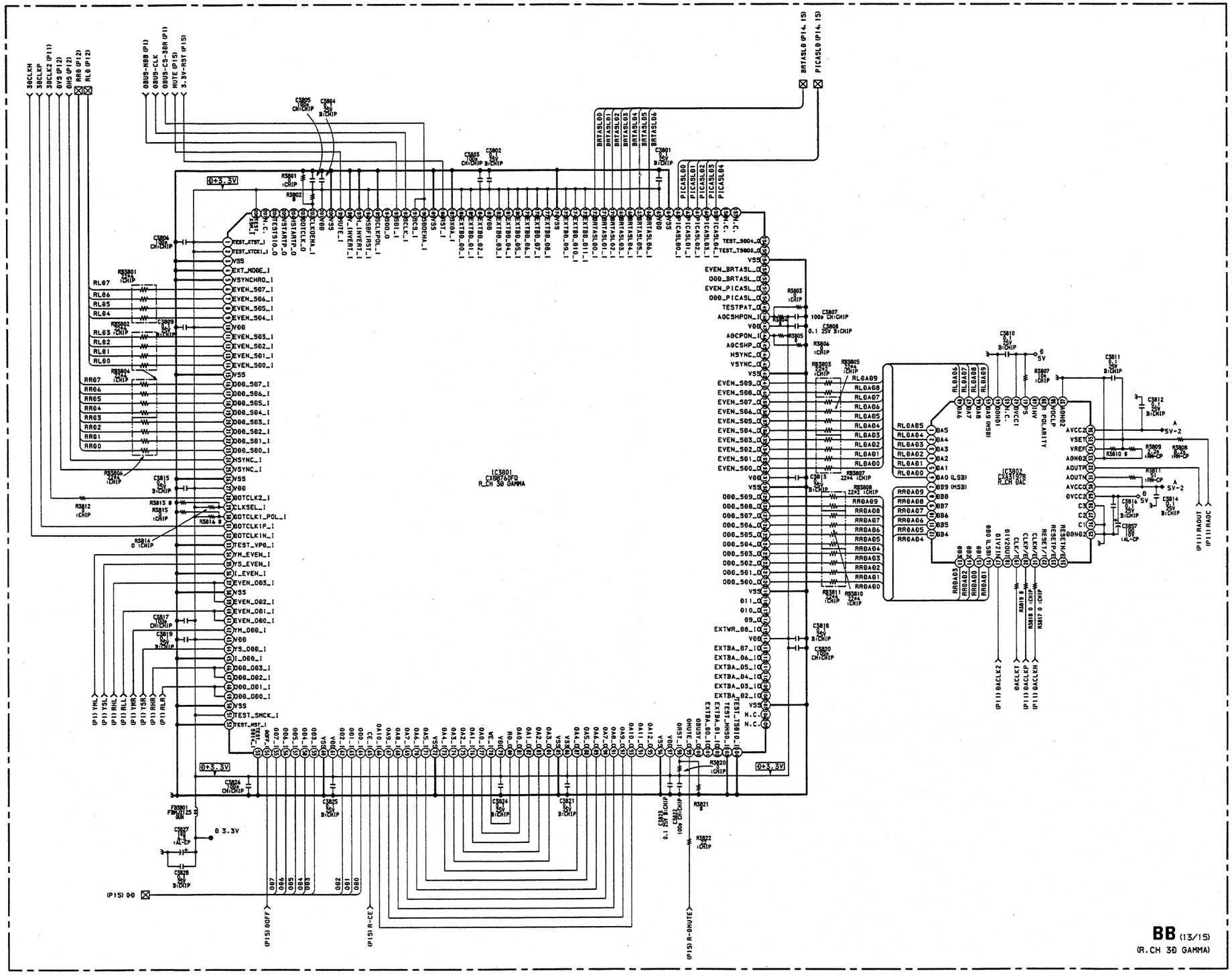

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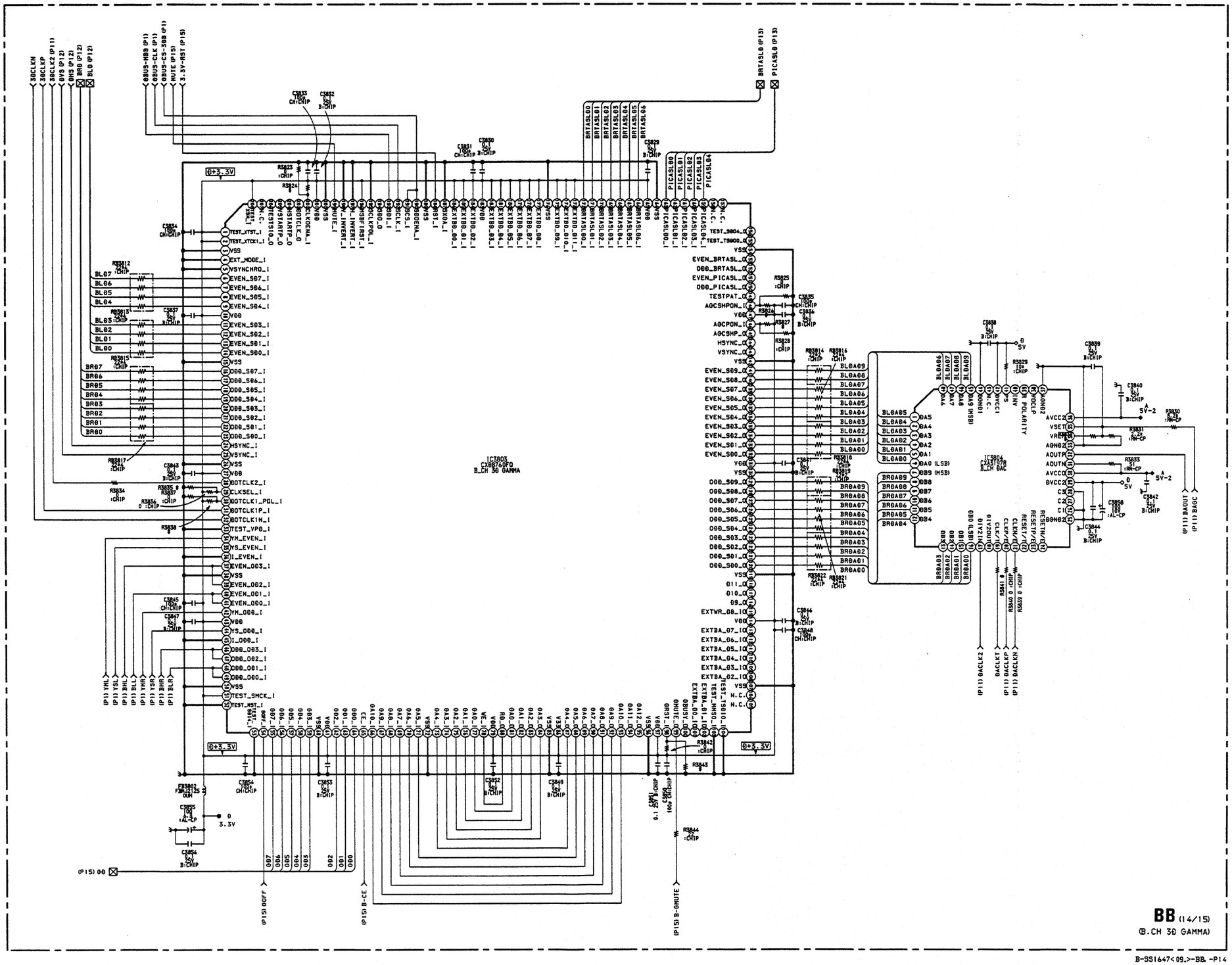

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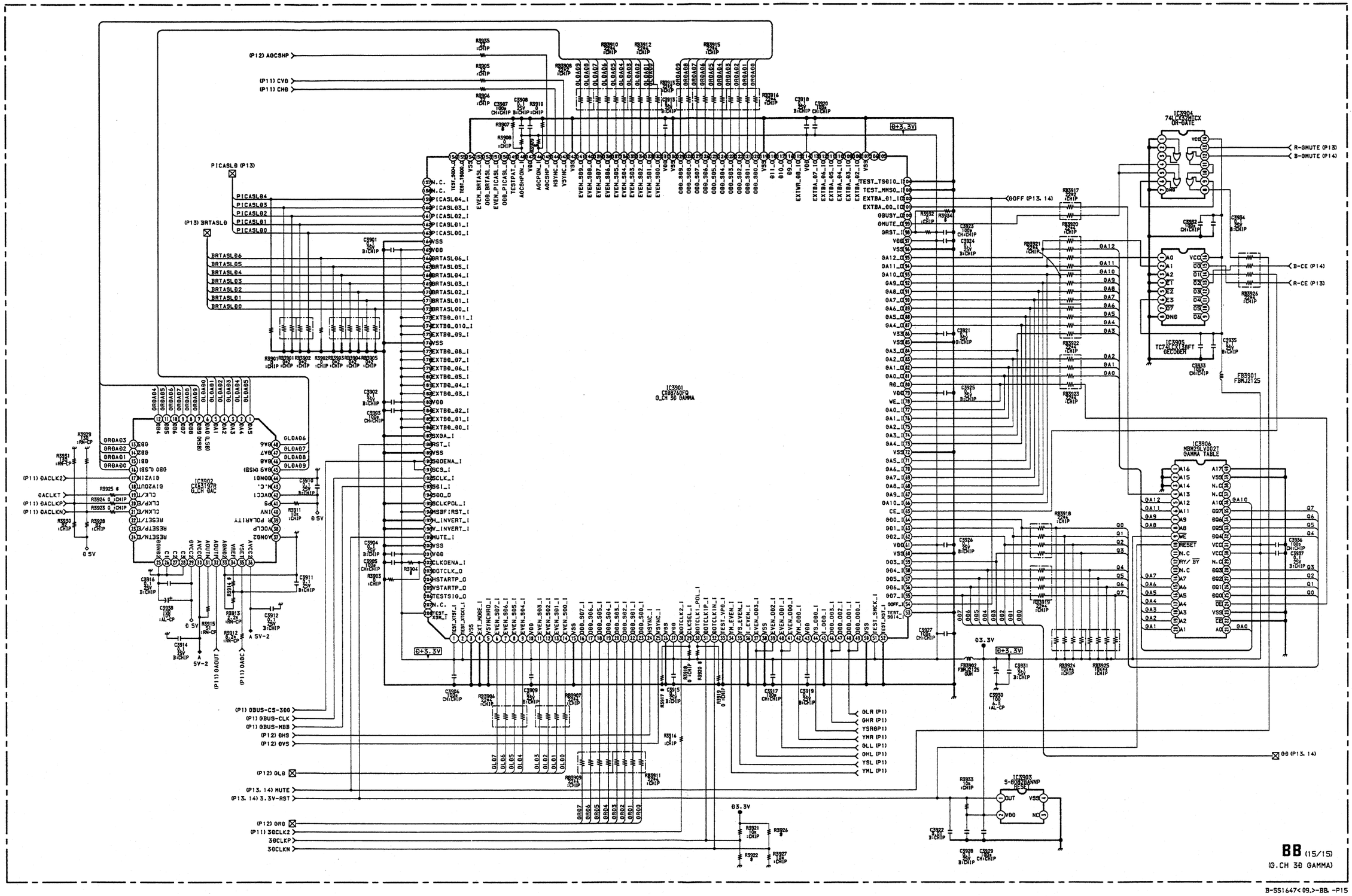
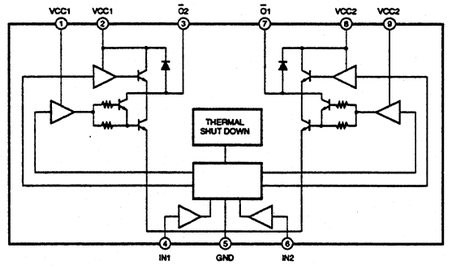


BC Board IC Block Diagrams

M54544AL (IC4306 – 4308)



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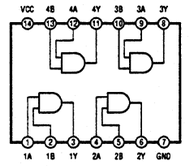

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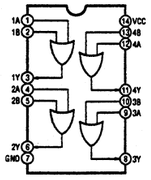

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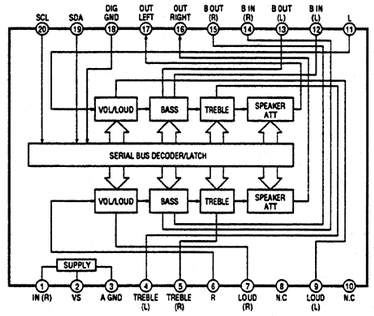

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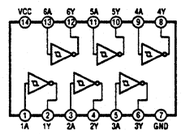
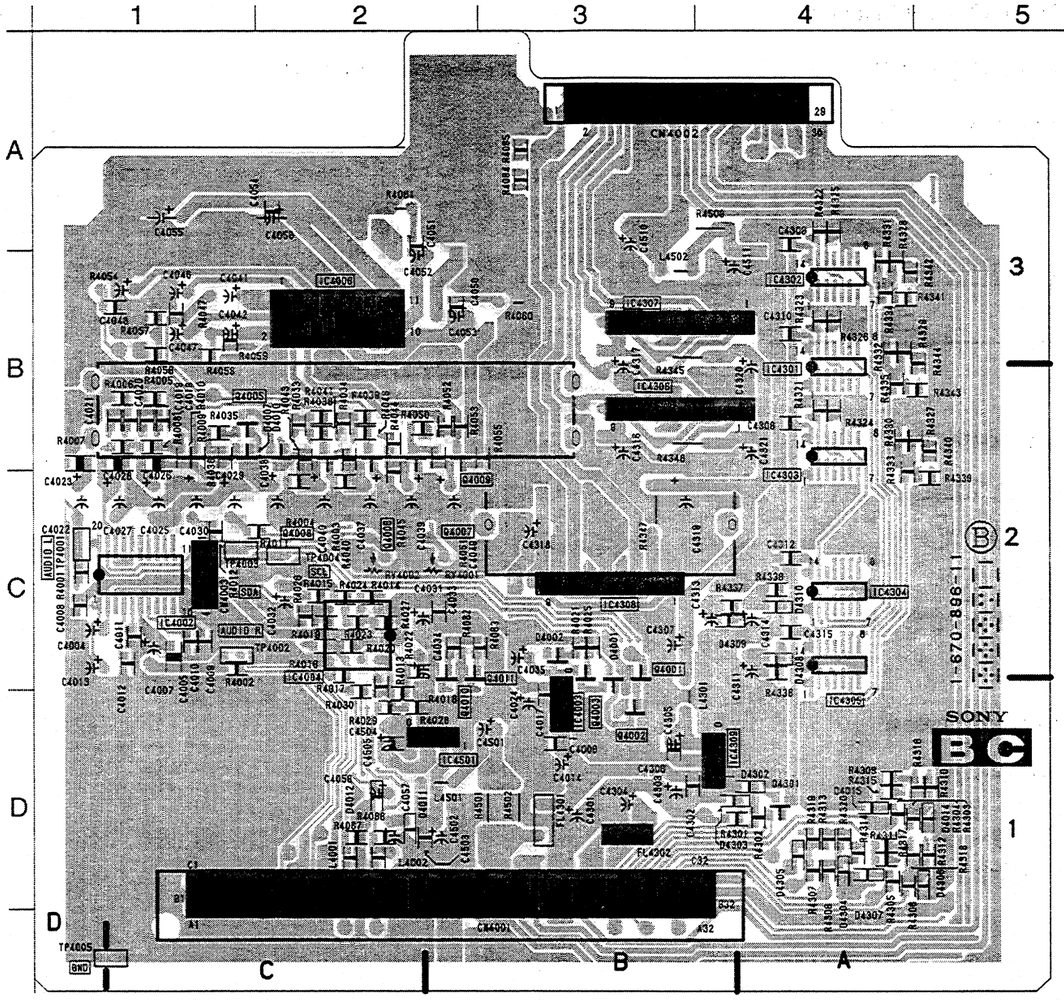
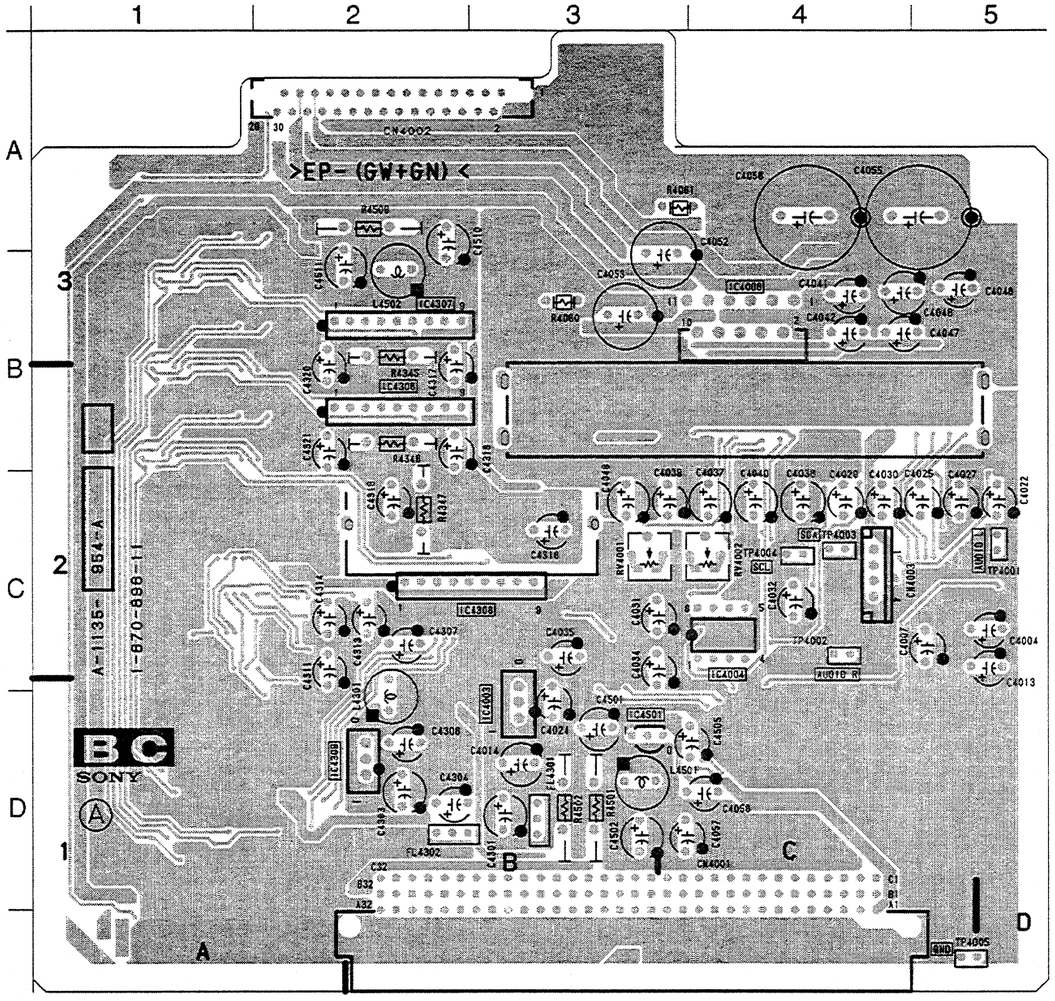




BC – B SIDE –

SUFFIX ; -11



BC – A SIDE –

SUFFIX ; -11

–
BC
–
1-670-896-11

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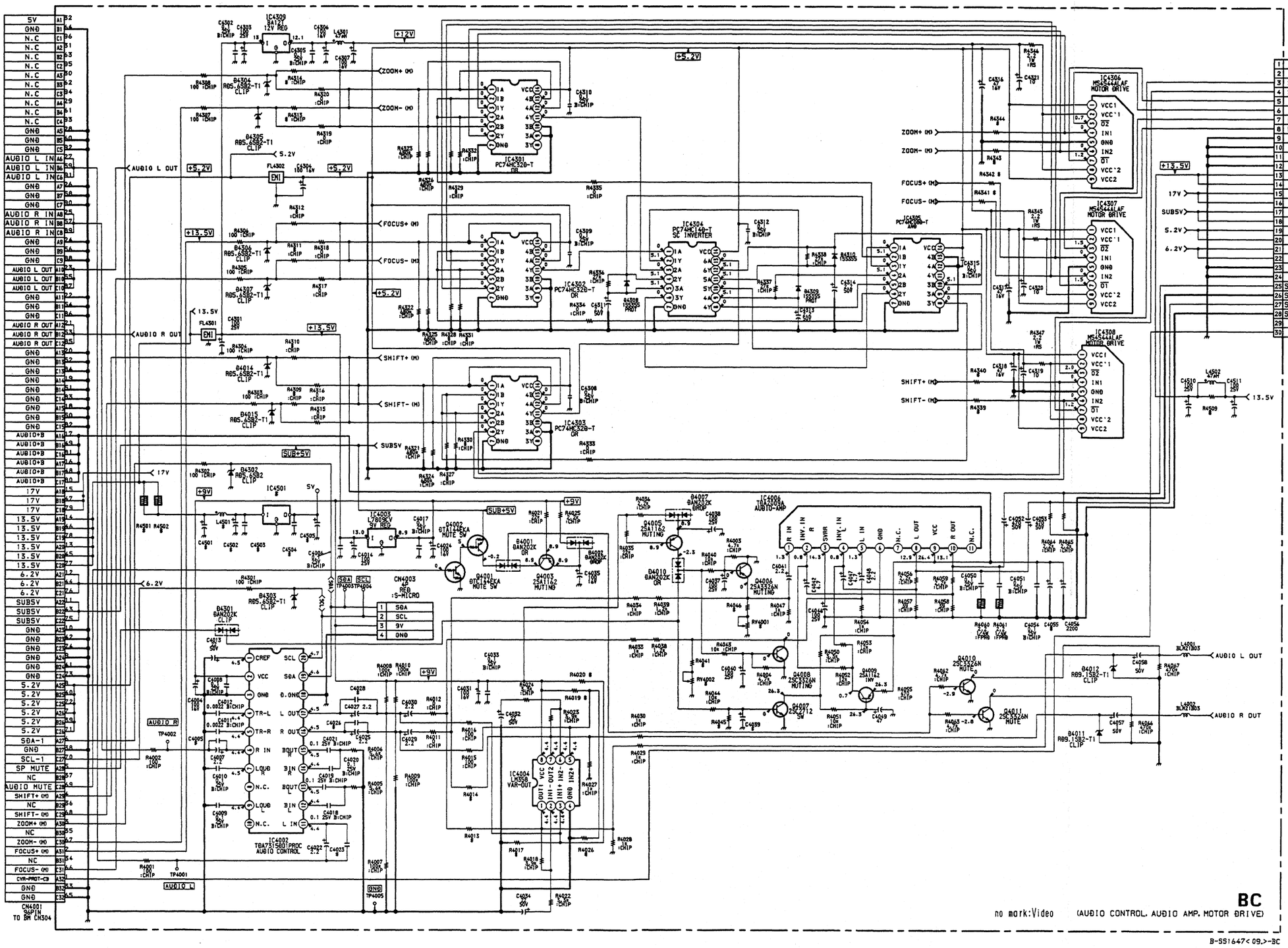
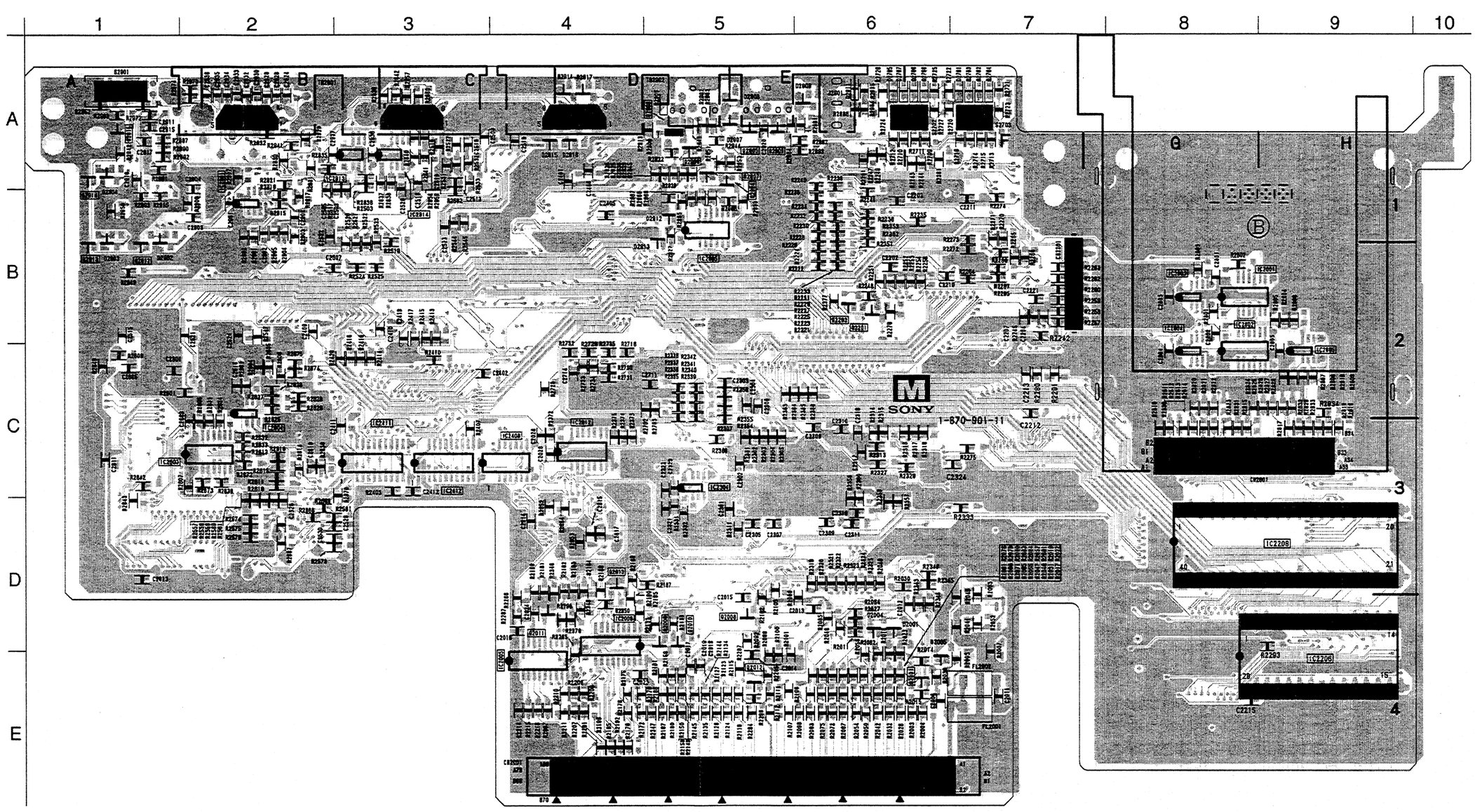
D4002	*C-3	IC4304	*C-4	
D4007	*B-1	IC4305	*C-4	
D4010	*B-1	IC4306	*B-3	
D4011	*D-2	IC4307	*B-3	
D4012	*D-2	IC4308	*C-3	
D4014	*D-5	IC4309	*D-4	
D4015	*D-4			
D4301	*D-4	Q4001	*C-3	
D4302	*D-4	Q4002	*D-3	
D4303	*D-4	Q4003	*C-3	
D4304	*D-4	Q4005	*B-1	
D4305	*D-4	Q4006	*C-2	
D4306	*D-5	Q4007	*C-2	
D4307	*D-4	Q4008	*C-2	
D4308	*C-4	Q4009	*C-2	
D4309	*C-4	Q4010	*C-2	
D4310	*C-4	Q4011	*C-2	
IC4003	*D-3	TP4001	*C-1	
IC4004	*C-2	TP4002	*C-1	
IC4006	*B-2	TP4003	*C-1	
IC4301	*B-4	TP4004	*C-2	
IC4302	*B-4	TP4005	*D-1	

*:B Side mount

- Refer to page 9-46 for Printed Wiring Board
- Refer to page 9-45 for IC Block Diagrams



M M



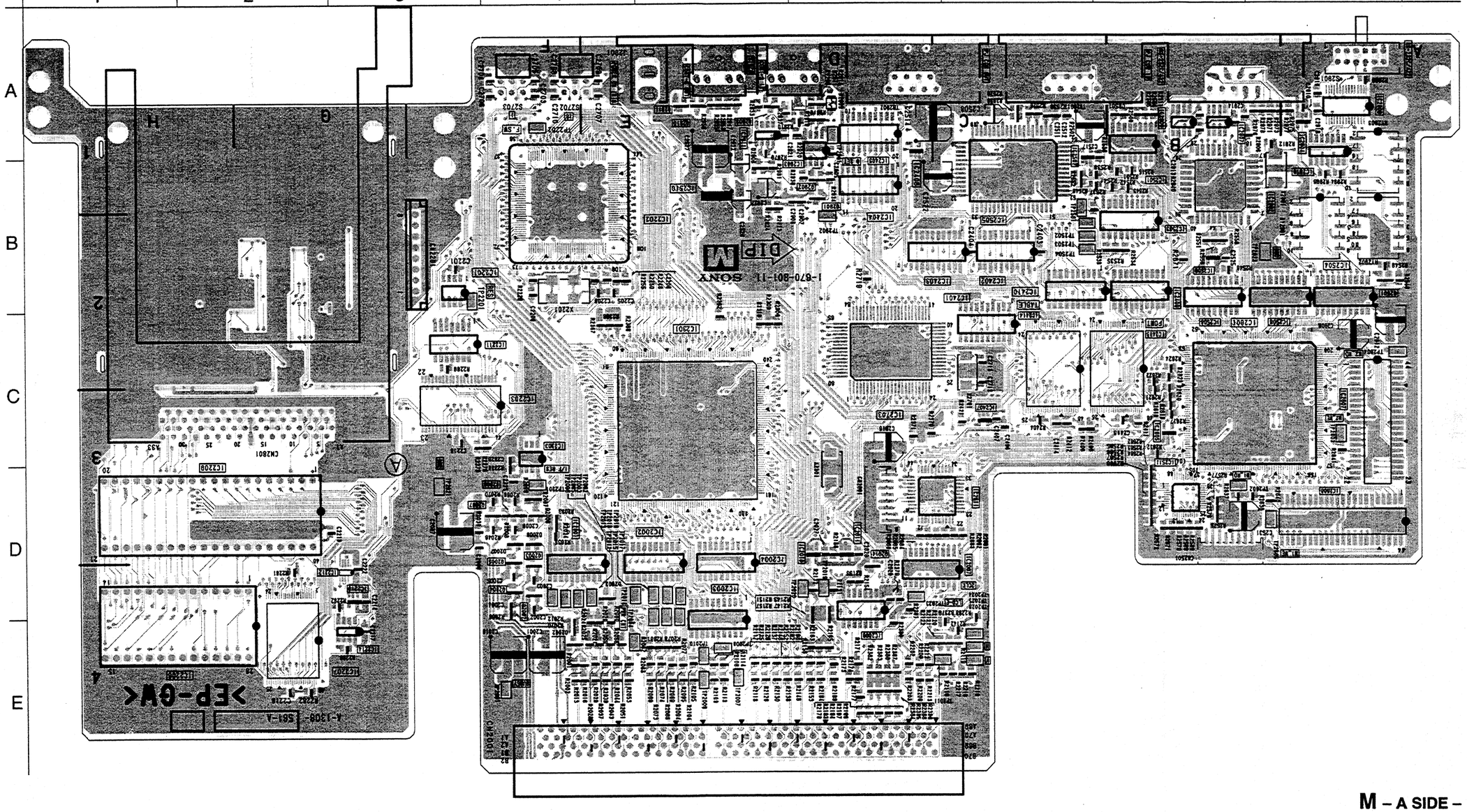
M

1-670-901-11

M– B SIDE –

SUFFIX ; -11

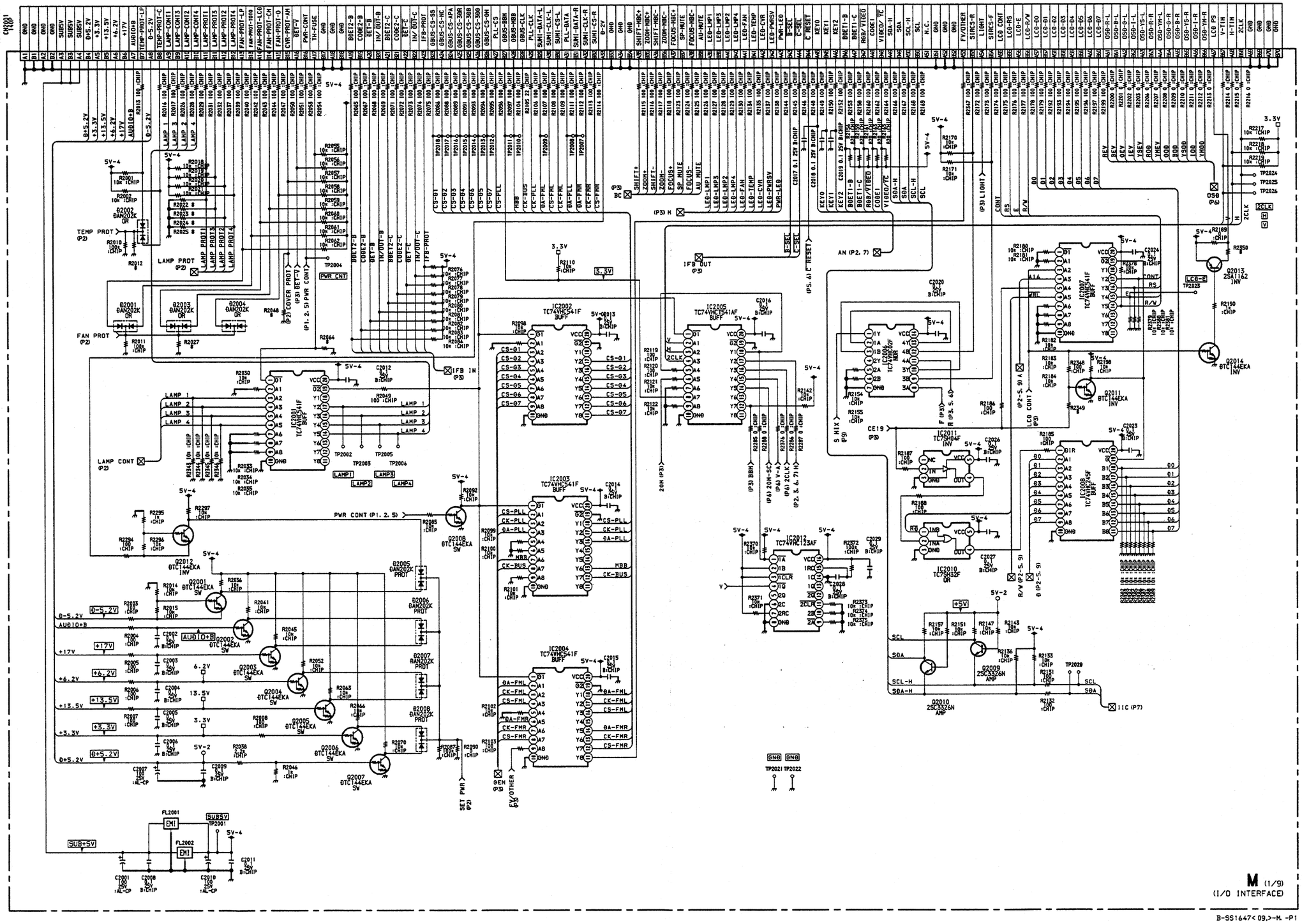
D2001	*D-6	D2904	*B-1	IC2005	*E-4	IC2303	C-4	IC2504	B-9	IC2903	A-6	Q2010	*D-5	Q2911	A-5	TP2013	D-5	TP2502	B-7
D2002	E-4	D2905	*A-5	IC2006	D-6	IC2304	*C-5	IC2505	B-7	IC2904	A-9	Q2011	*D-4	Q2912	*B-1	TP2014	D-4	TP2503	B-7
D2003	D-4	D2906	B-5	IC2007	D-6	IC2401	C-7	IC2506	B-9	IC2905	*B-5	Q2012	*E-5	Q2913	*B-1	TP2015	E-5	TP2504	B-7
D2004	*D-6	D2907	*A-5	IC2008	*D-4	IC2402	B-7	IC2507	A-7	IC2906	A-8	Q2013	*D-4	Q2914	*B-1	TP2016	D-5	TP2602	D-9
D2005	*E-6	D2908	*A-5	IC2010	D-6	IC2403	B-6	IC2508	B-8	IC2907	A-8	Q2014	D-6	Q2915	*A-1	TP2017	E-5	TP2603	C-9
D2006	D-4	D2909	*A-6	IC2011	D-6	IC2404	B-6	IC2509	B-8	IC2909	A-9	Q2201	*B-6			TP2018	D-5	TP2604	C-9
D2007	D-4	D2911	*A-6	IC2012	*C-4	IC2405	A-6	IC2510	B-5	IC2910	B-9	Q2202	*B-6	TP2001	E-4	TP2019	D-6	TP2605	D-9
D2008	D-4	D2912	*B-5	IC2201	B-3	IC2406	B-6	IC2511	D-8	IC2911	A-5	Q2501	B-9	TP2002	D-4	TP2020	D-6	TP2901	A-6
D2701	*A-7	D2913	*B-5	IC2202	B-4	IC2407	C-7	IC2601	B-6			Q2901	B-6	TP2003	D-4	TP2021	D-3	TP2902	B-6
D2702	*A-7	D2914	*A-4	IC2203	C-3	IC2408	B-8	IC2603	*C-2	Q2001	*E-6	Q2902	B-6	TP2004	E-4	TP2022	B-9		
D2703	*A-7	D2915	*A-4	IC2206	E-1	IC2409	B-8	IC2604	*C-2	Q2002	D-4	Q2903	A-5	TP2005	D-4	TP2023	D-7	*:B Side mount	
D2704	*A-7	D2916	*A-4	IC2207	E-2	IC2410	B-7	IC2605	C-8	Q2003	D-4	Q2904	*A-5	TP2006	D-4	TP2024	E-7		
D2705	*A-6	D2917	*A-4	IC2209	D-2	IC2411	*C-3	IC2607	C-9	Q2004	D-4	Q2905	*A-5	TP2007	E-5	TP2025	E-7		
D2706	*A-6			IC2211	C-3	IC2412	*C-3	IC2608	D-6	Q2005	D-4	Q2906	*A-5	TP2008	E-5	TP2026	E-7		
D2707	*A-6	IC2001	D-4	IC2212	D-2	IC2413	C-8	IC2611	D-6	Q2006	D-4	Q2907	*A-5	TP2009	E-5	TP2201	B-3		
D2708	*A-6	IC2002	D-5	IC2213	D-3	IC2414	C-7	IC2703	C-6	Q2007	D-4	Q2908	*A-5	TP2010	E-5	TP2202	A-4		
D2902	*B-1	IC2003	E-5	IC2214	E-3	IC2501	B-8	IC2901	*B-2	Q2008	*D-5	Q2909	*A-5	TP2011	E-6	TP2301	D-4		
D2903	*B-1	IC2004	D-5	IC2301	C-5	IC2503	B-8	IC2902	B-9	Q2009	*D-5	Q2910	A-5	TP2012	E-5	TP2501	B-7		



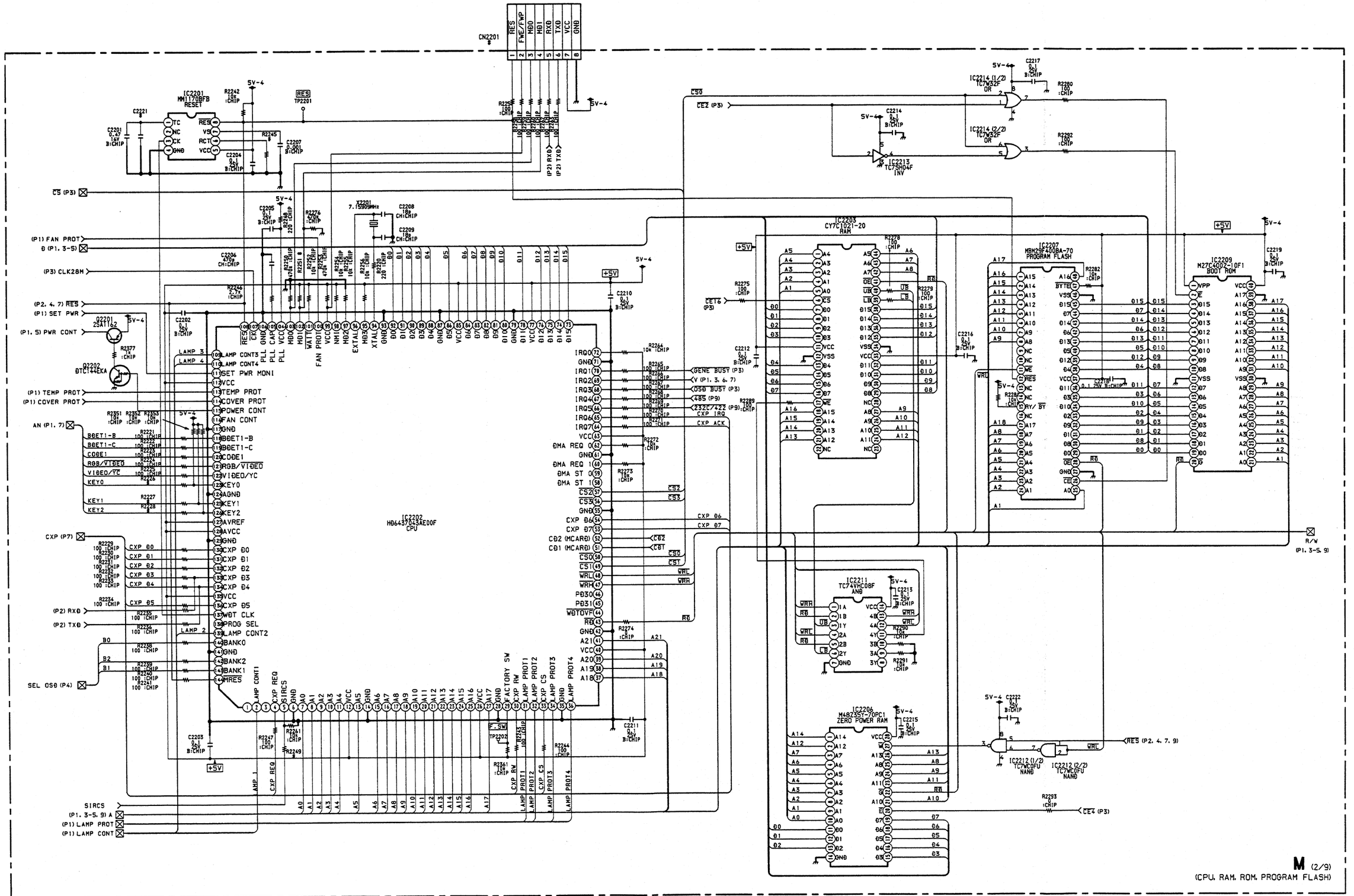
M – A SIDE –

SUFFIX ; -11

- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



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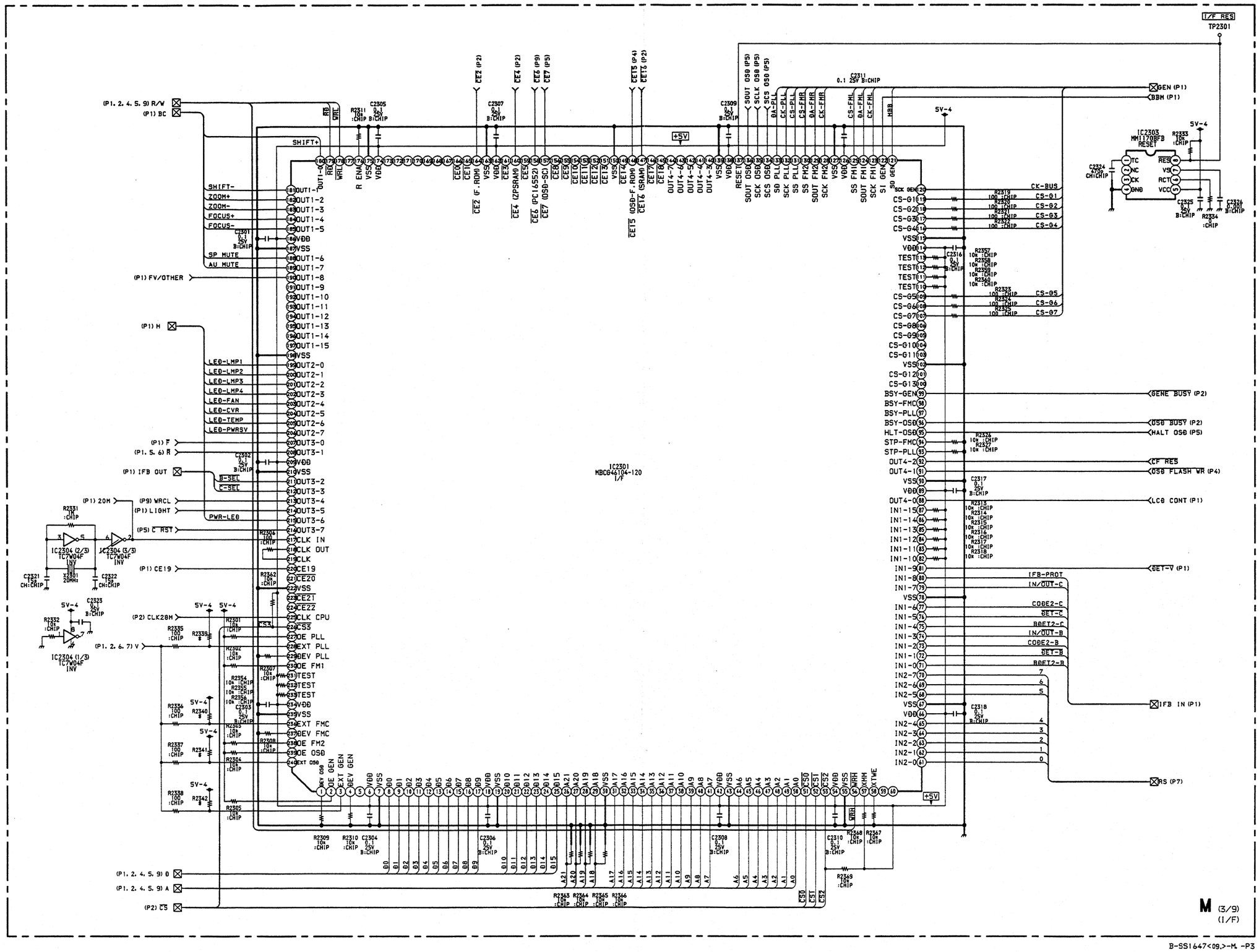
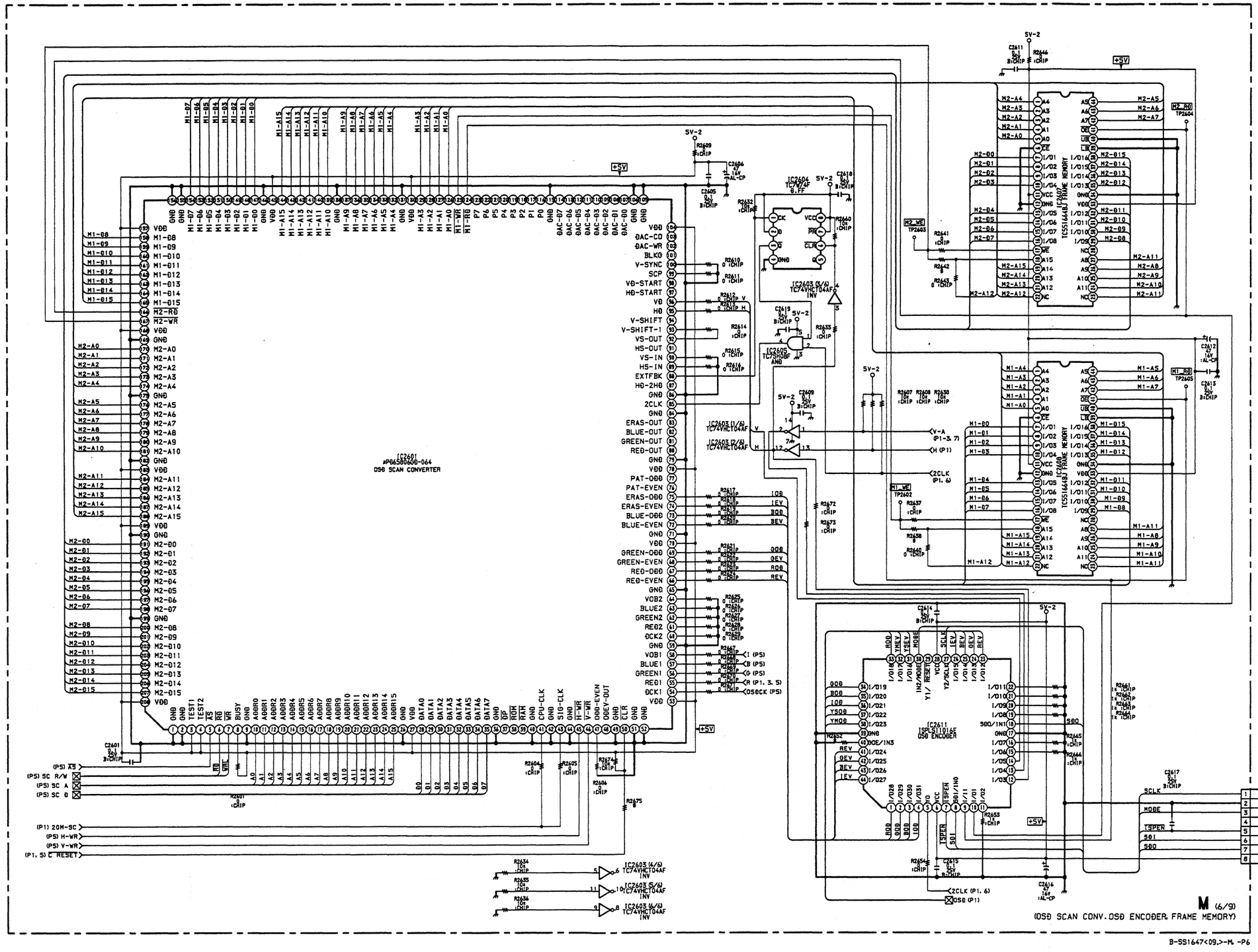
- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams

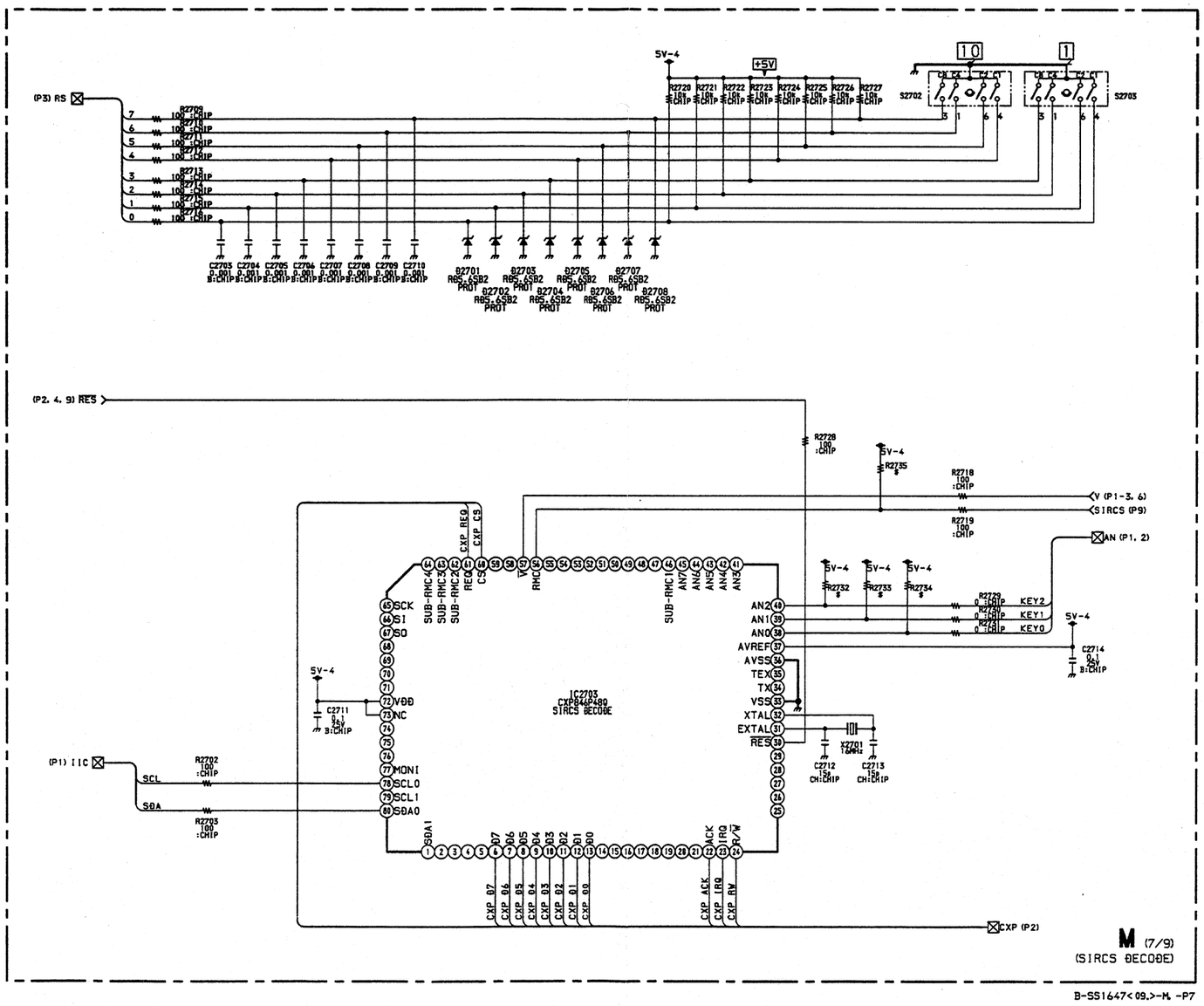


B-SS1647<09.>-M -P3

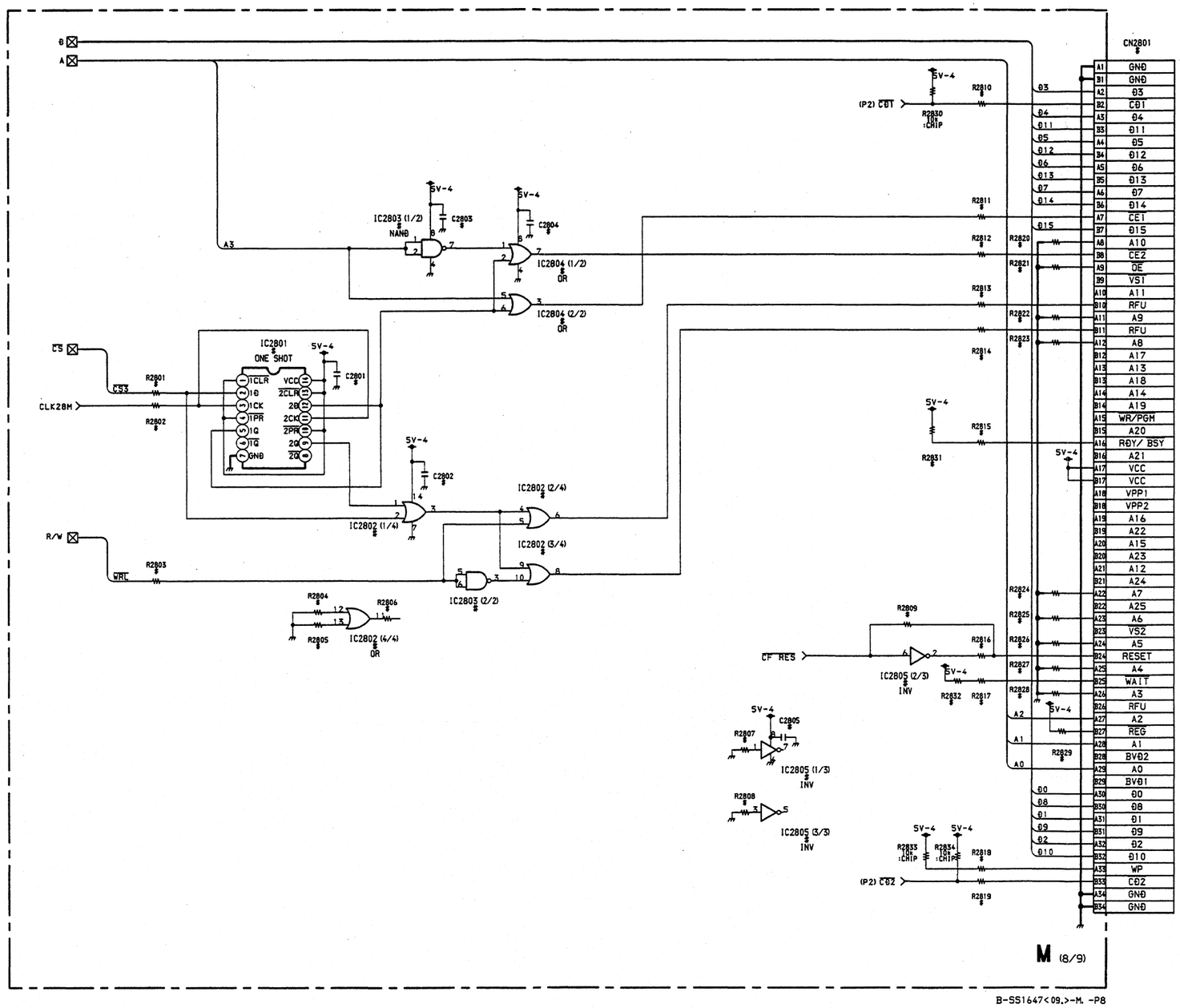
- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



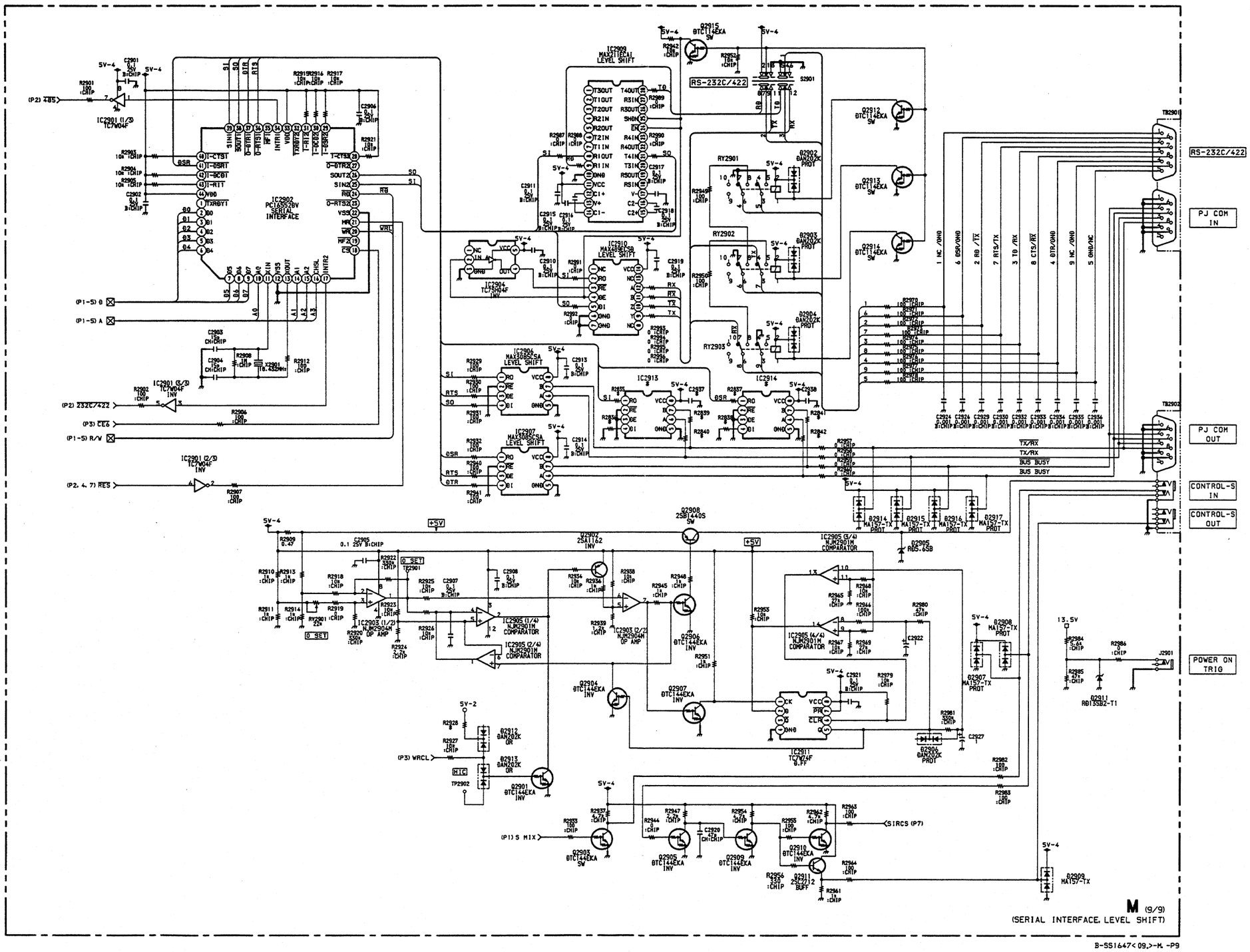
- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



- Refer to page 9-48, 9-49 for Printed Wiring Board
- Refer to page 9-59 for IC Block Diagrams



M Board IC Block Diagrams

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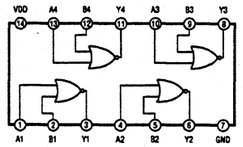

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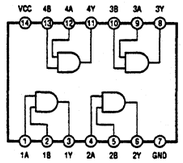
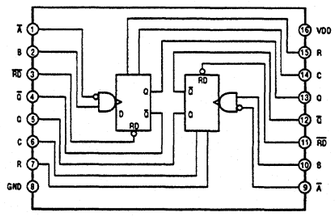
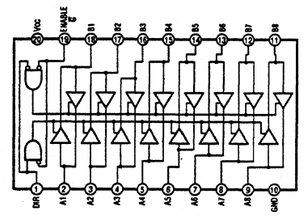


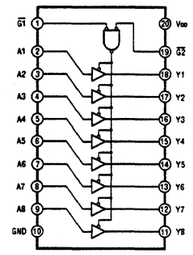
TC74VHC123AF (IC2012, 2501)



TV74VHC245F (IC2008)



TC74VHC541F
(IC2001 – 2004, 2007, 2503, 2504, 2506, 2508)



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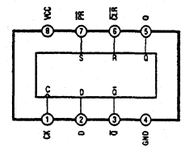

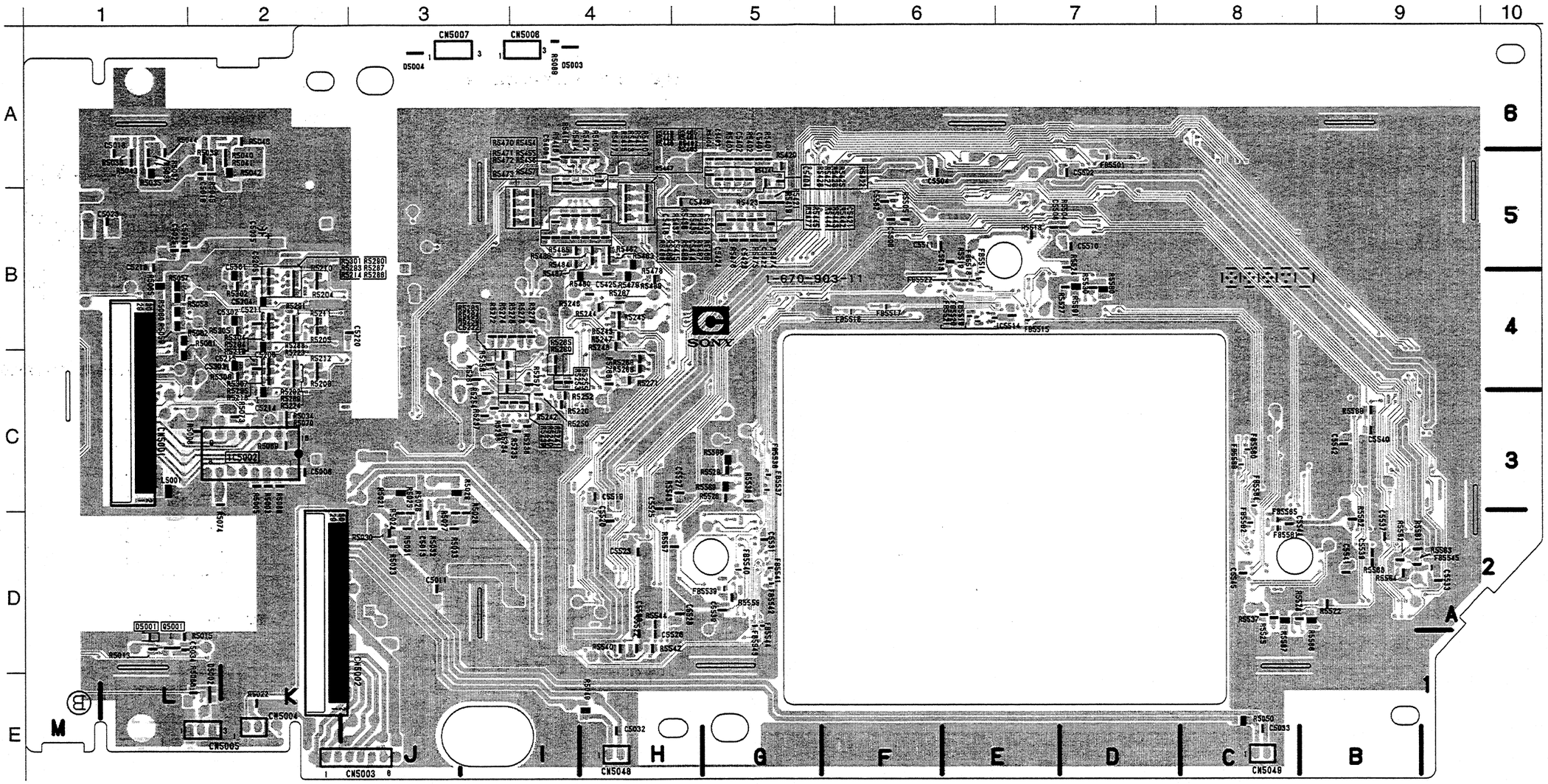

C

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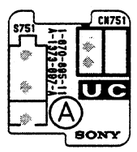
D5001	*D-1	IC5208	B-8	Q5402	B-7	TP5010	E-7	TP5506	D-6		
D5002	*E-2	IC5209	C-8	Q5501	D-2	TP5011	B-9	TP5507	C-1		
D5003	*A-4	IC5210	B-8	Q5502	C-6	TP5012	D-9	TP5508	D-2		
D5004	*A-3	IC5214	C-7	Q5503	B-3	TP5013	C-9	TP5509	C-2		
		IC5215	B-6	Q5504	D-2	TP5014	D-9	TP5510	B-3		
IC5002	*C-2	IC5216	C-6	Q5505	D-2	TP5201	B-7	TP5511	C-5		
IC5003	D-8	IC5301	D-6	Q5506	C-6	TP5202	C-9	TP5512	D-2		
IC5004	D-7	IC5302	C-6	Q5507	C-5	TP5203	B-7	TP5513	B-4		
IC5005	B-9	IC5304	C-1	Q5508	B-3	TP5204	B-9	TP5514	D-6		
IC5006	A-9	IC5305	D-1	Q5509	B-3	TP5205	C-7	TP5515	C-2		
IC5007	B-9	IC5401	B-6			TP5206	C-9				
IC5008	D-9	IC5402	B-5	TP5001	C-9	TP5209	C-8	*:B Side mount			
IC5009	E-9	IC5403	B-6	TP5002	C-9	TP5210	C-7				
IC5010	E-8	IC5404	B-6	TP5003	C-9	TP5212	C-7				
IC5201	B-8	IC5501	B-3	TP5004	C-8	TP5213	B-7				
IC5202	B-8	IC5502	B-5	TP5005	C-7	TP5501	B-5				
IC5203	B-8			TP5006	A-9	TP5502	B-4				
IC5204	B-8	Q5001	*D-1	TP5007	A-8	TP5503	B-4				
IC5205	C-8	Q5003	D-9	TP5008	D-9	TP5504	D-7				
IC5206	C-8	Q5401	B-6	TP5009	C-8	TP5505	D-6				

C – B SIDE –

SUFFIX ; -11

UC – B SIDE –

SUFFIX ; -11



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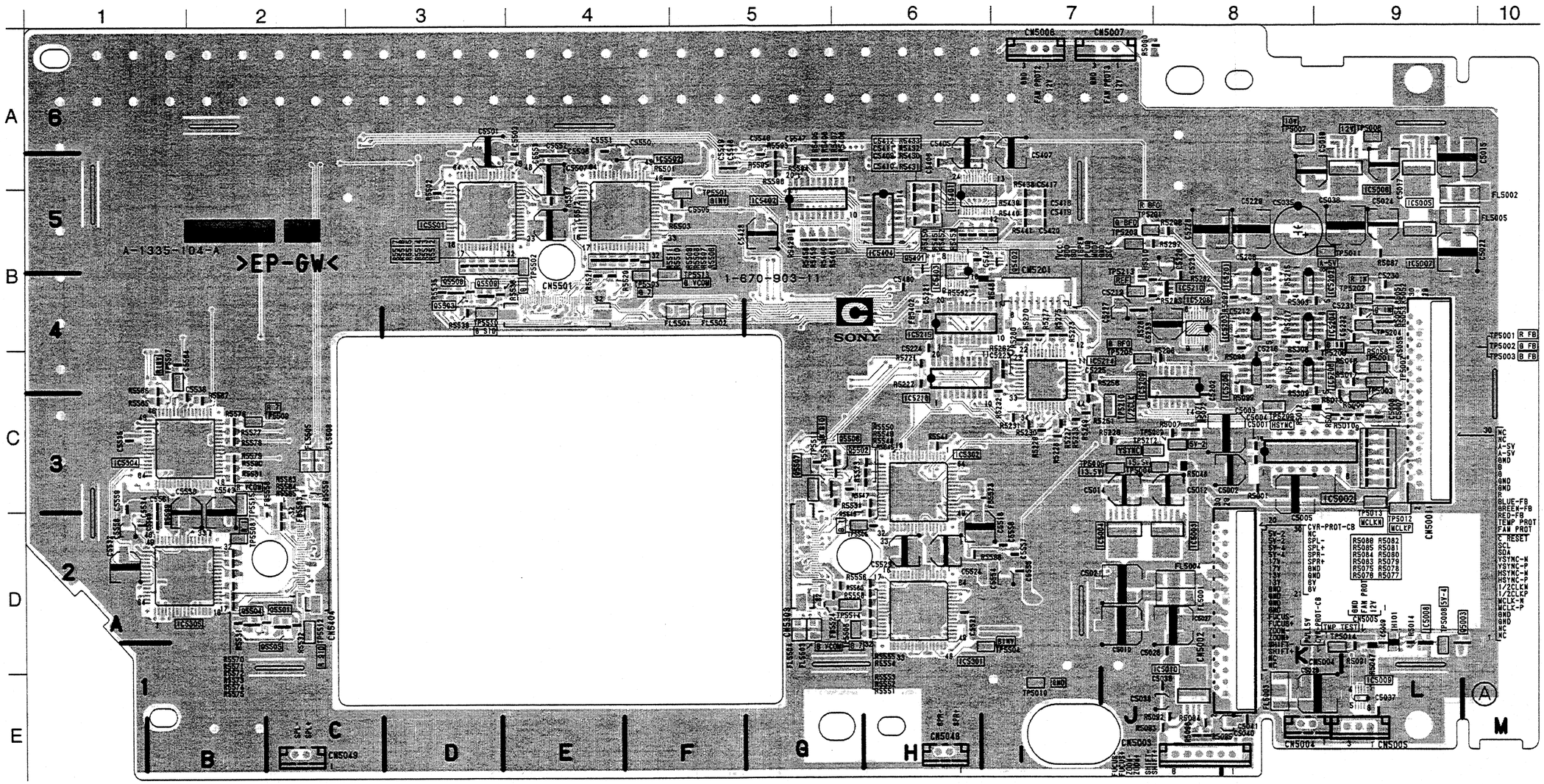
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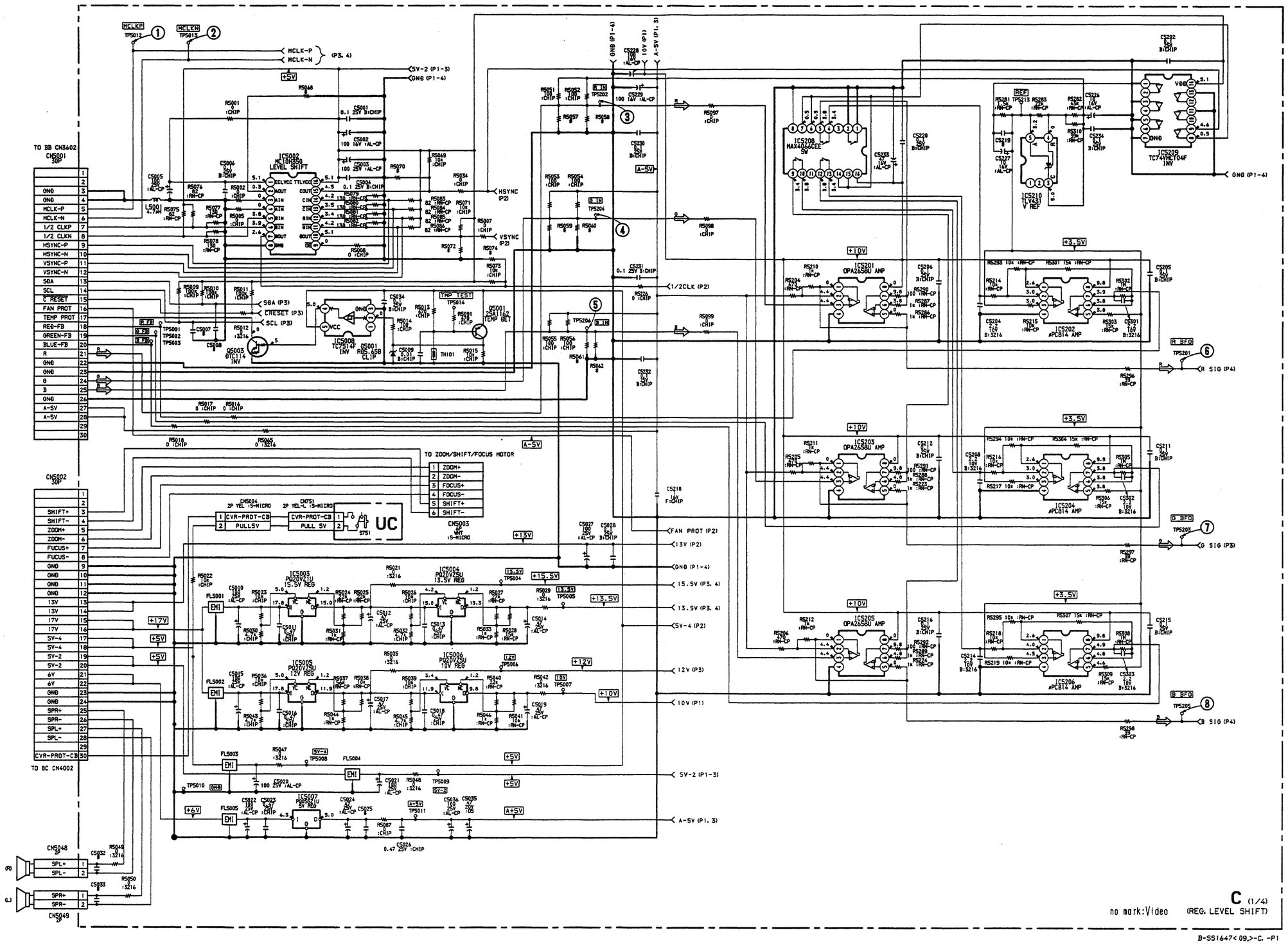
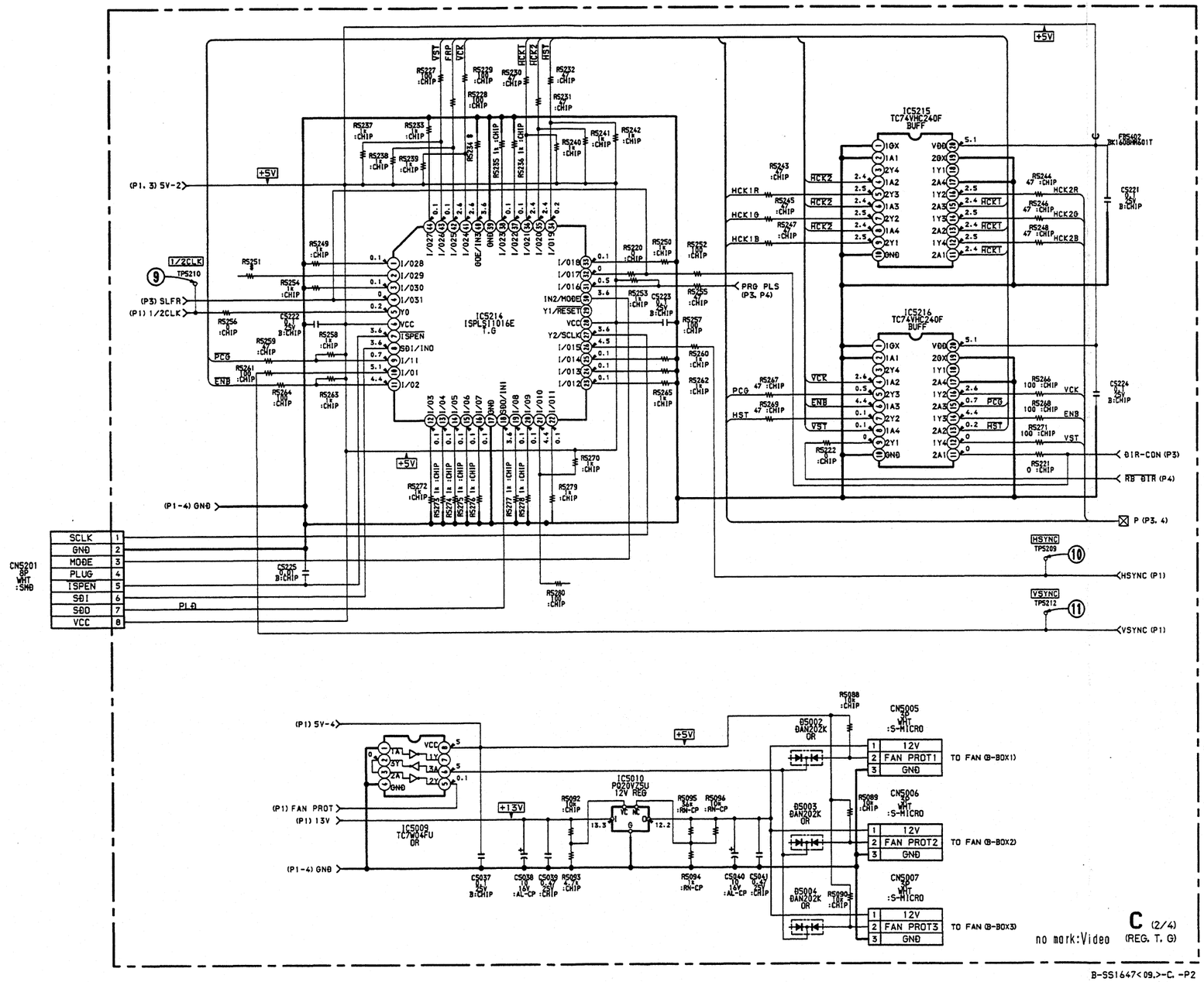
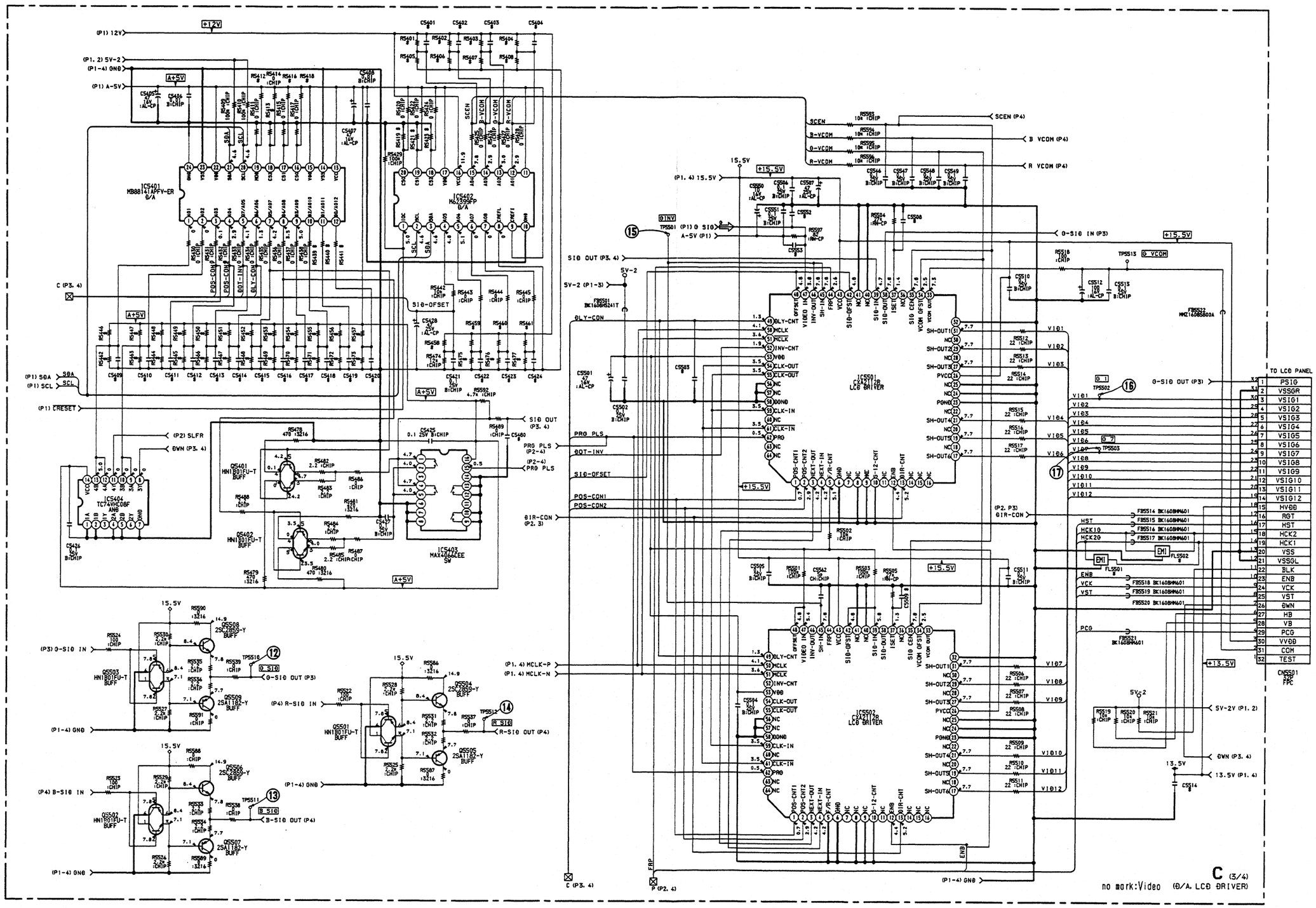
- Refer to page 9-60, 9-61 for Printed Wiring Board
- Refer to page 9-66 for Waveforms
- Refer to page 9-66 for IC Block Diagrams



- Refer to page 9-60, 9-61 for Printed Wiring Board
- Refer to page 9-66 for Waveforms
- Refer to page 9-66 for IC Block Diagrams



- Refer to page 9-60, 9-61 for Printed Wiring Board
- Refer to page 9-66 for Waveforms
- Refer to page 9-66 for IC Block Diagrams



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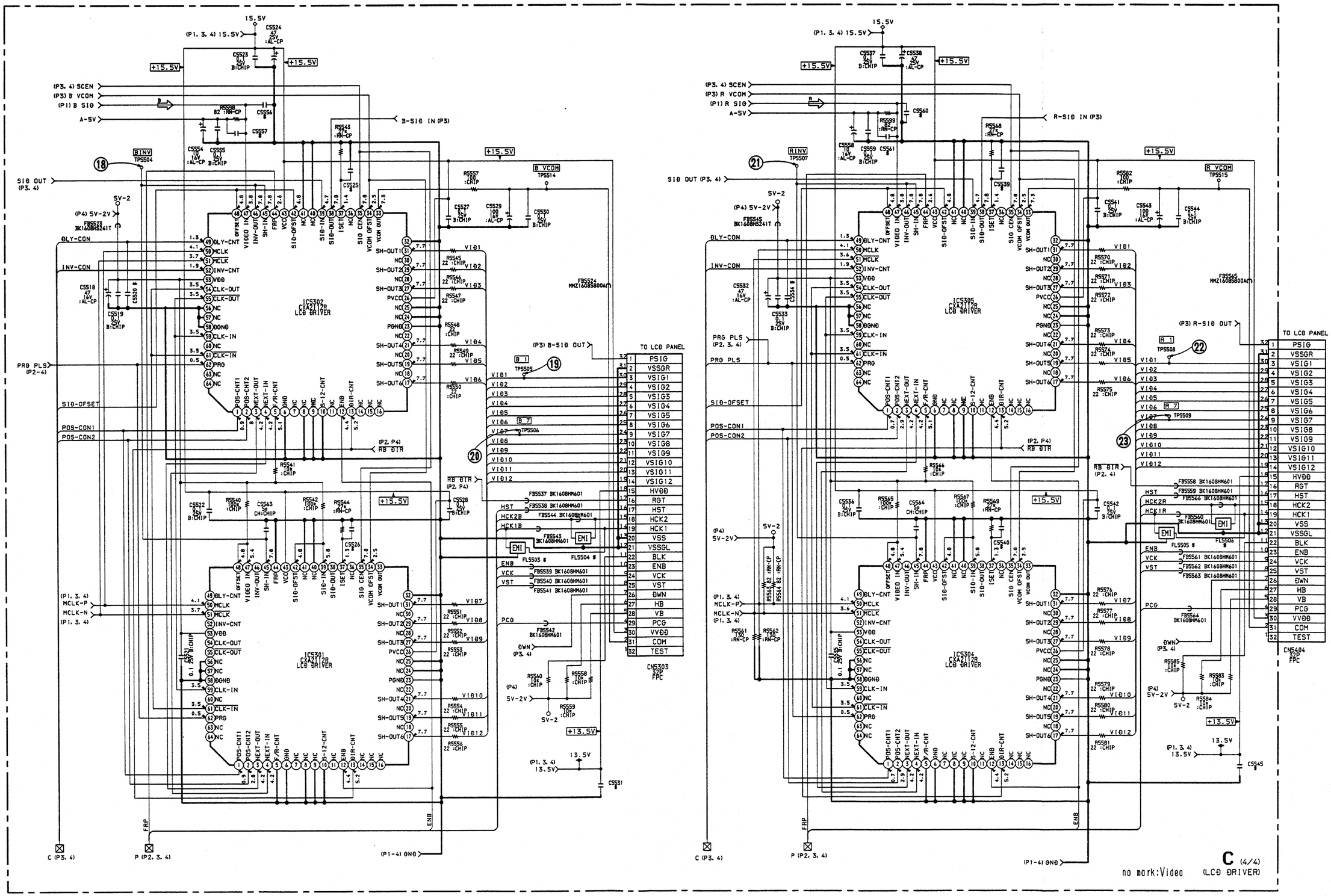
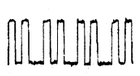
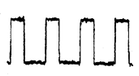
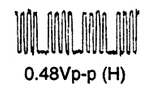
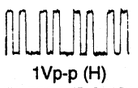
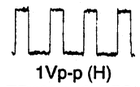
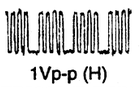
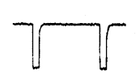
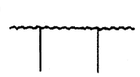
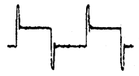
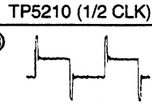
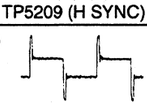
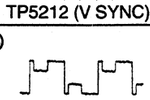
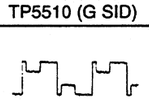
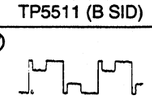
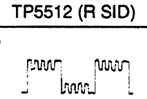
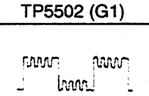
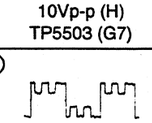
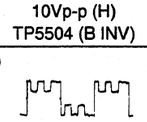
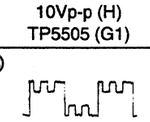
- Refer to page 9-60, 9-61 for Printed Wiring Board
- Refer to page 9-66 for Waveforms
- Refer to page 9-66 for IC Block Diagrams

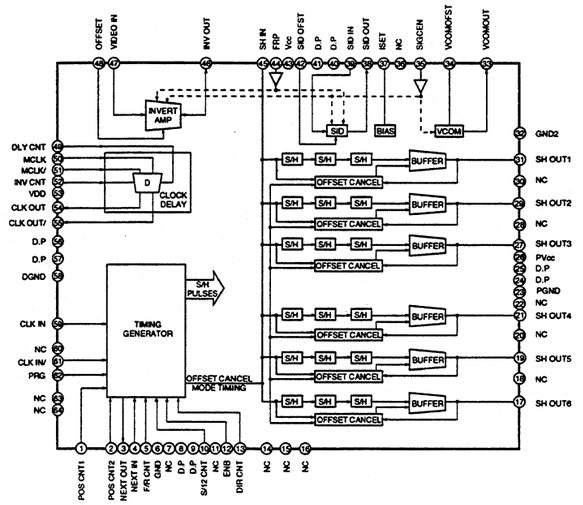


C Board Waveforms

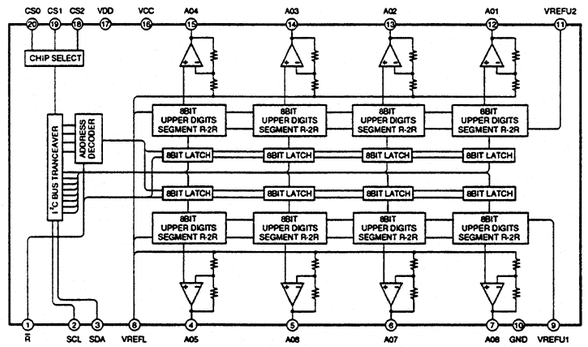
① 0.6Vp-p (H) TP5012 (MCLKP)	② 0.7Vp-p (H) TP5013 (MCLKN)	③  0.5Vp-p (H) TP5202 (R IN)	④  0.5Vp-p (H) TP5204 (G IN)
⑤  0.48Vp-p (H) TP5206 (B IN)	⑥  1Vp-p (H) TP5201 (R BFO)	⑦  1Vp-p (H) TP5203 (G BFO)	⑧  1Vp-p (H) TP5205 (B BFO)
⑨ 6.8Vp-p (H) TP5210 (1/2 CLK)	⑩  5Vp-p (V) TP5209 (H SYNC)	⑪  5Vp-p (H) TP5212 (V SYNC)	⑫  7.6Vp-p (H) TP5510 (G SID)
⑬  7.6Vp-p (H) TP5511 (B SID)	⑭  7.6Vp-p (H) TP5512 (R SID)	⑮  10Vp-p (H) TP5501 (G INV)	⑯  10Vp-p (H) TP5502 (G1)
⑰  10Vp-p (H) TP5503 (G7)	⑱  10Vp-p (H) TP5504 (B INV)	⑲ 10Vp-p (H) TP5505 (G1)	⑳  10Vp-p (H) TP5506 (G7)
㉑  10Vp-p (H) TP5507 (R INV)	㉒  10Vp-p (H) TP5508 (R1)	㉓  10Vp-p (H) TP5509 (R7)	

C Board IC Block Diagrams

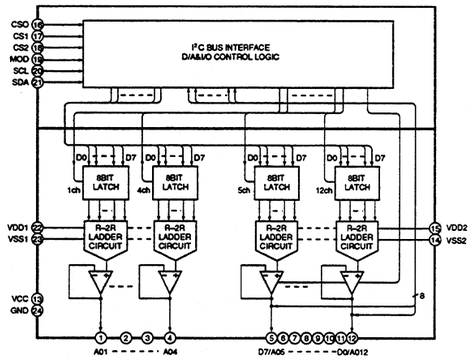
CXA2112R-T6 (IC5501, 5502, 5301, 5302, 5304, 5305)



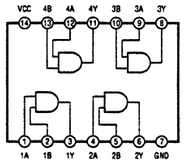
M62399FP-TE2 (IC5402)



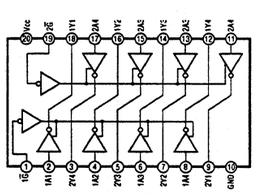
MB8814APFV-ER (IC5401)



TC74VHC08F (IC5404)

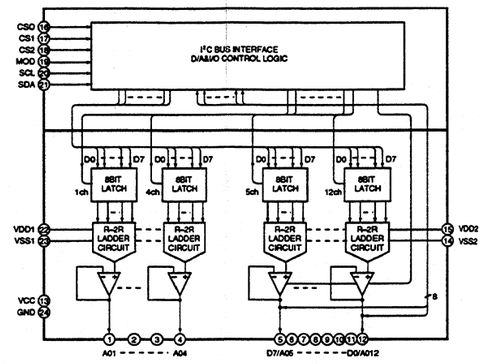


TC74VHC240F (IC5215, 5216)

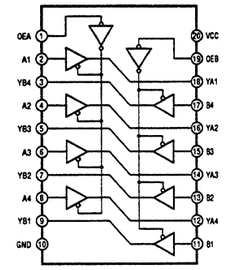


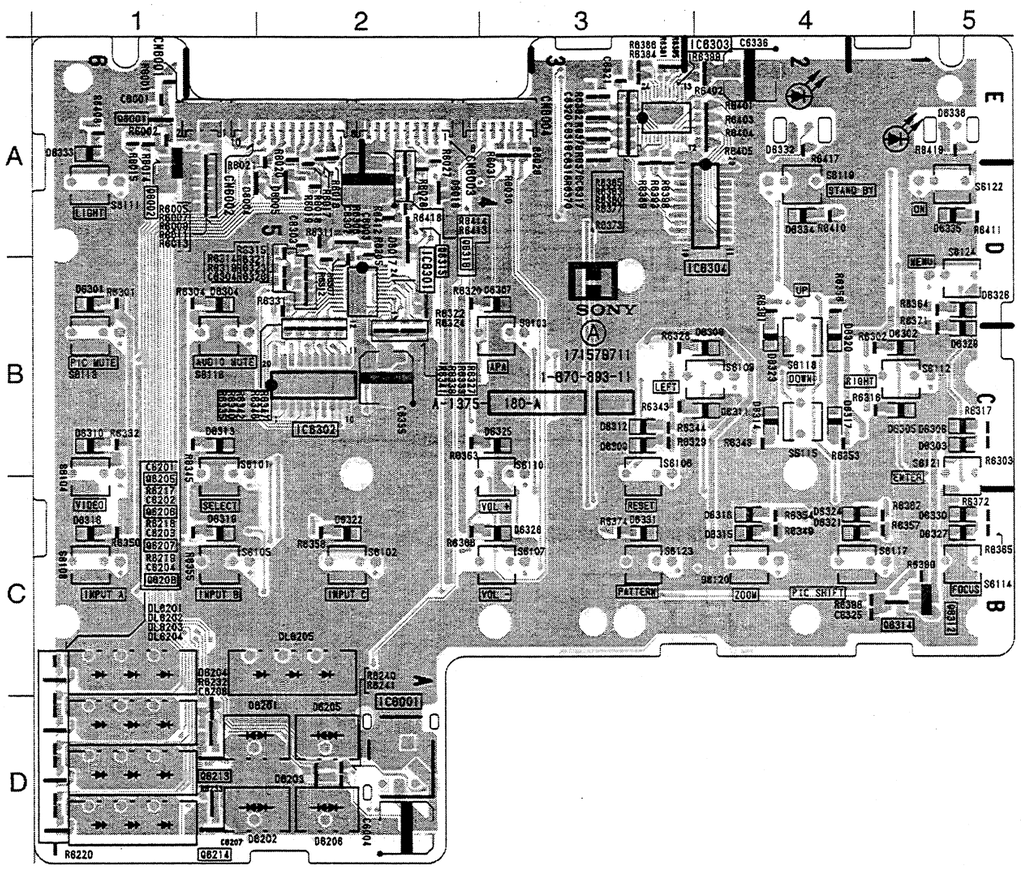
H Board IC Block Diagrams

MB8814APFV-ER (IC6301, 6303)



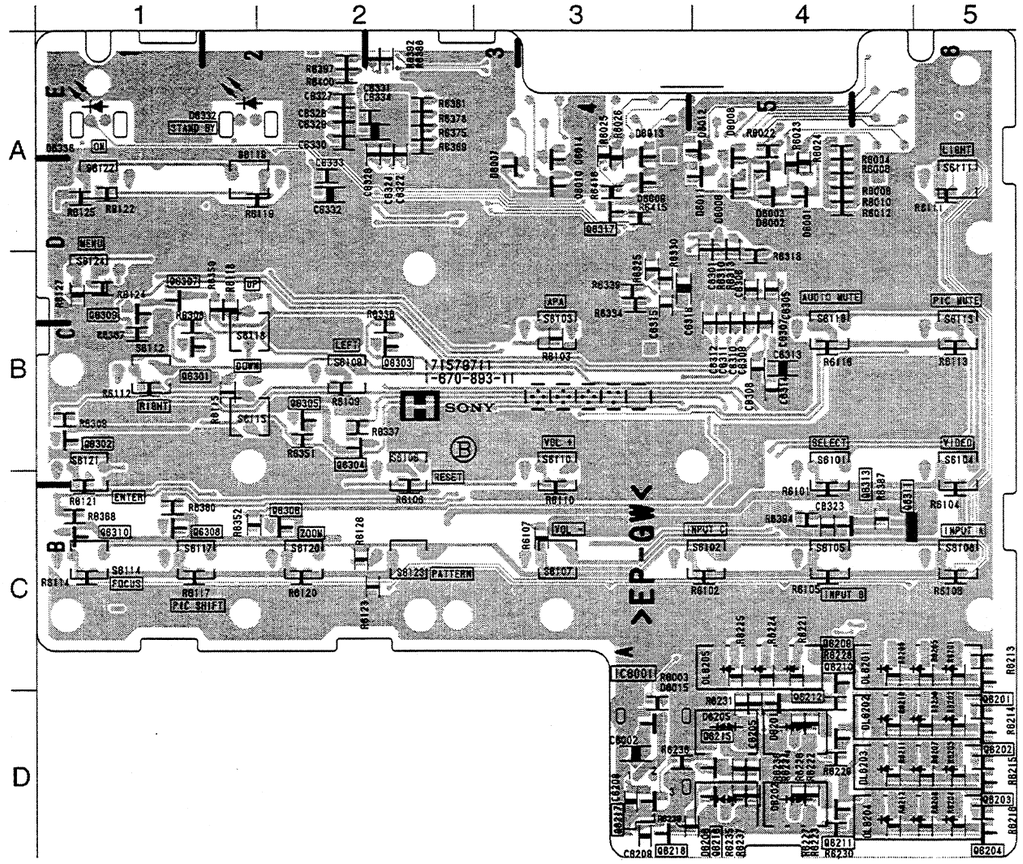
TC74VHC244F (IC6302, 6304)





H – A SIDE –

SUFFIX ; -11



H – B SIDE –

SUFFIX ; -11

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H
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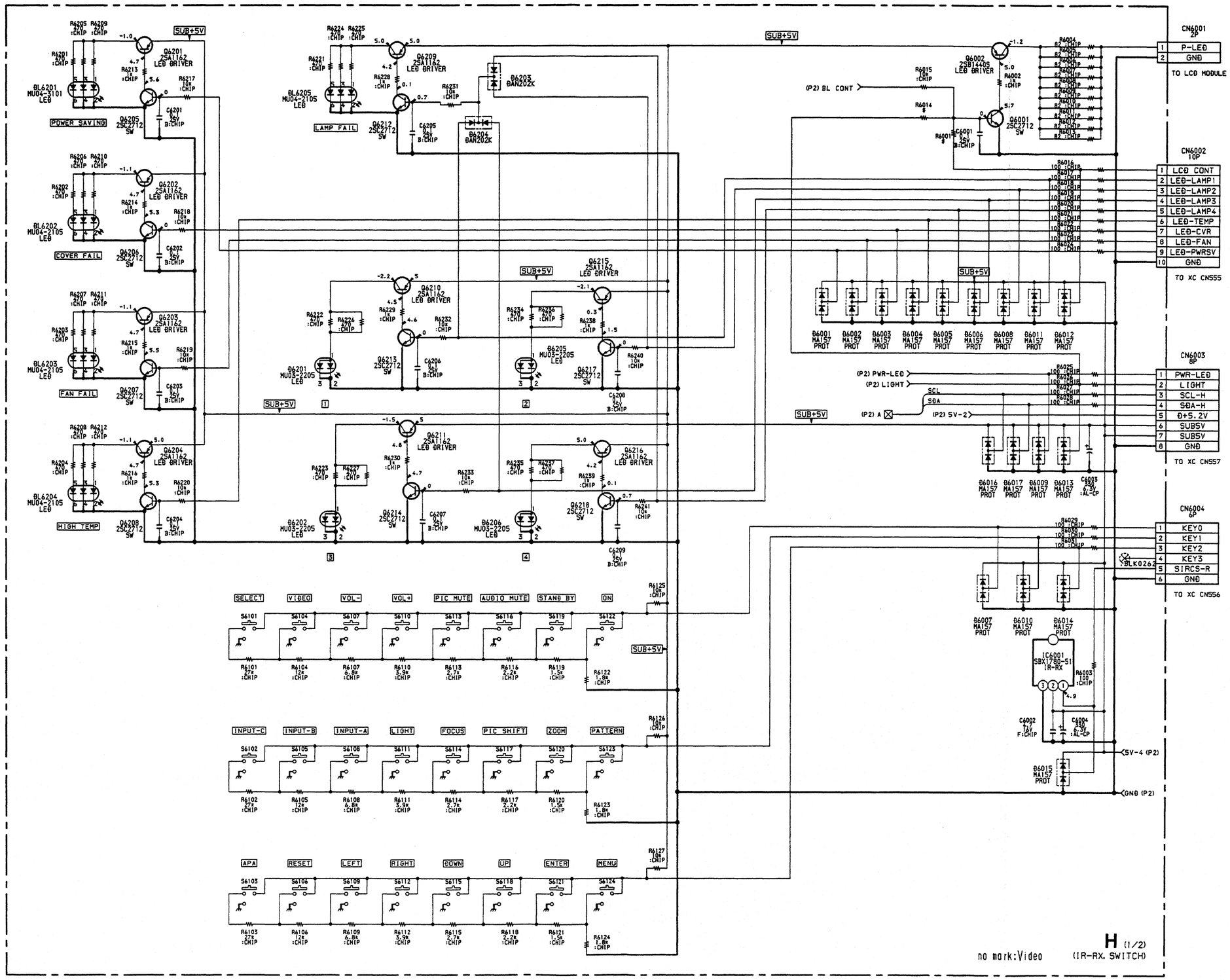
1-670-893-11

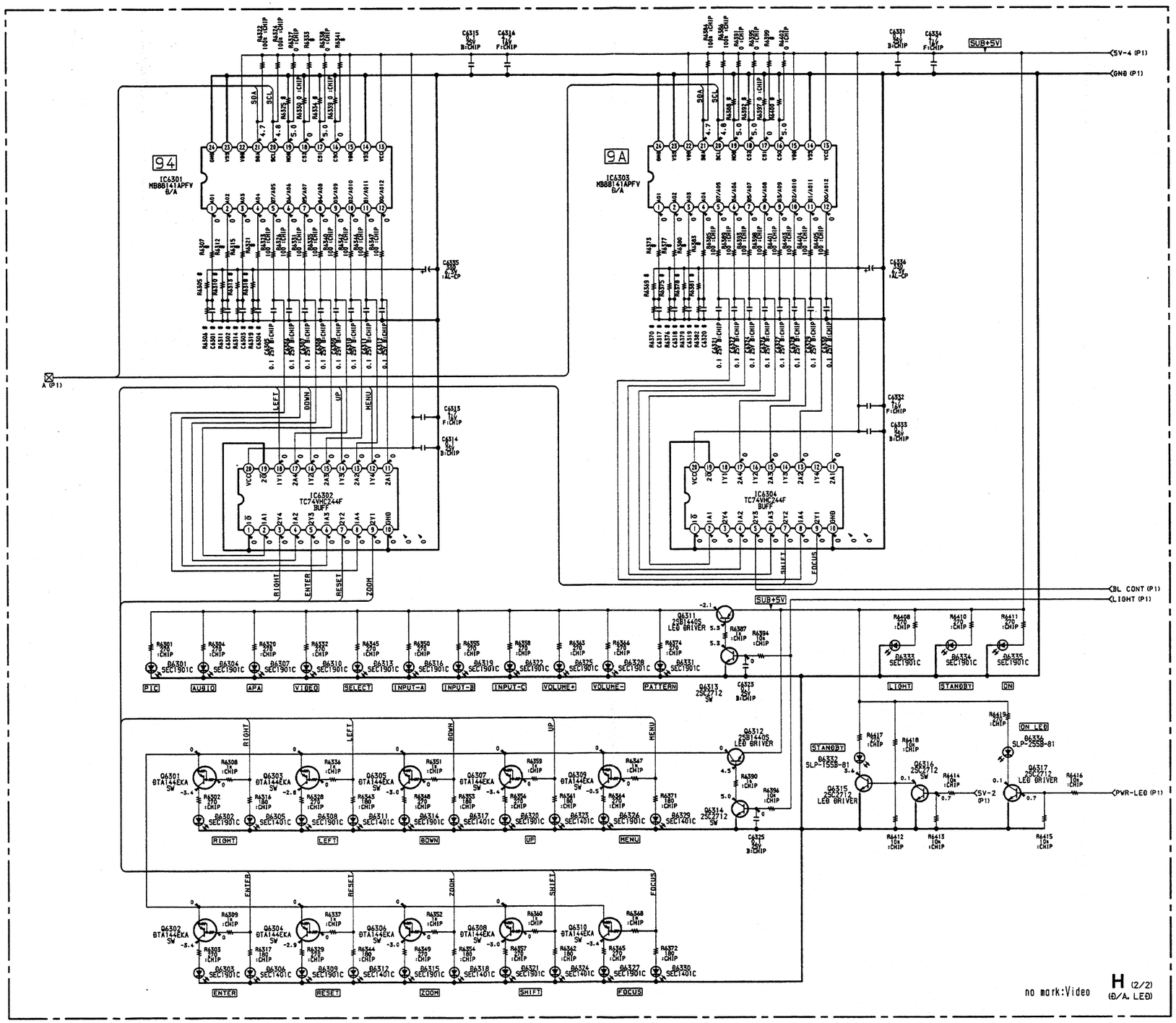
D6001	*A-4	D6304	B-1	D6330	C-5	Q6211	*D-4
D6002	*A-4	D6305	B-4	D6331	C-3	Q6212	*D-4
D6003	*A-4	D6306	B-5	D6332	A-4	Q6213	D-1
D6004	A-1	D6307	B-3	D6333	A-1	Q6214	D-1
D6005	A-2	D6308	B-4	D6334	A-4	Q6215	*D-4
D6006	*A-4	D6309	B-3	D6335	A-5	Q6216	*D-4
D6007	*A-3	D6310	B-1	D6336	A-5	Q6217	*D-3
D6008	*A-4	D6311	B-4			Q6218	*D-3
D6009	*A-3	D6312	B-3	IC6001	D-2	Q6301	B-1
D6010	*A-3	D6313	B-1	IC6301	B-2	Q6302	B-1
D6011	*A-4	D6314	B-4	IC6302	B-2	Q6303	*B-2
D6012	*A-4	D6315	C-4	IC6303	A-3	Q6304	*B-2
D6013	*A-3	D6316	C-1	IC6304	A-4	Q6305	*B-2
D6014	*A-3	D6317	B-4			Q6306	*C-2
D6015	*D-3	D6318	C-4	Q6001	A-1	Q6307	*B-1
D6016	A-2	D6319	C-1	Q6002	A-1	Q6308	*C-1
D6017	A-2	D6320	B-4	Q6201	*D-5	Q6309	*B-1
D6201	*D-4	D6321	C-4	Q6202	*D-5	Q6310	*C-1
D6202	*D-4	D6322	C-2	Q6203	*D-5	Q6311	*C-4
D6203	D-2	D6323	B-4	Q6204	*D-5	Q6312	C-5
D6204	C-1	D6324	C-4	Q6205	C-1	Q6313	*C-4
D6205	*D-4	D6325	B-3	Q6206	C-1	Q6314	C-4
D6206	*D-4	D6326	B-5	Q6207	C-1	Q6315	A-2
D6301	B-1	D6327	C-5	Q6208	C-1	Q6316	A-2
D6302	B-4	D6328	C-3	Q6209	*C-4	Q6317	A-3
D6303	B-5	D6329	B-5	Q6210	*C-4		

*:B Side mount

- Refer to page 9-68 for Printed Wiring Board
- Refer to page 9-67 for IC Block Diagrams

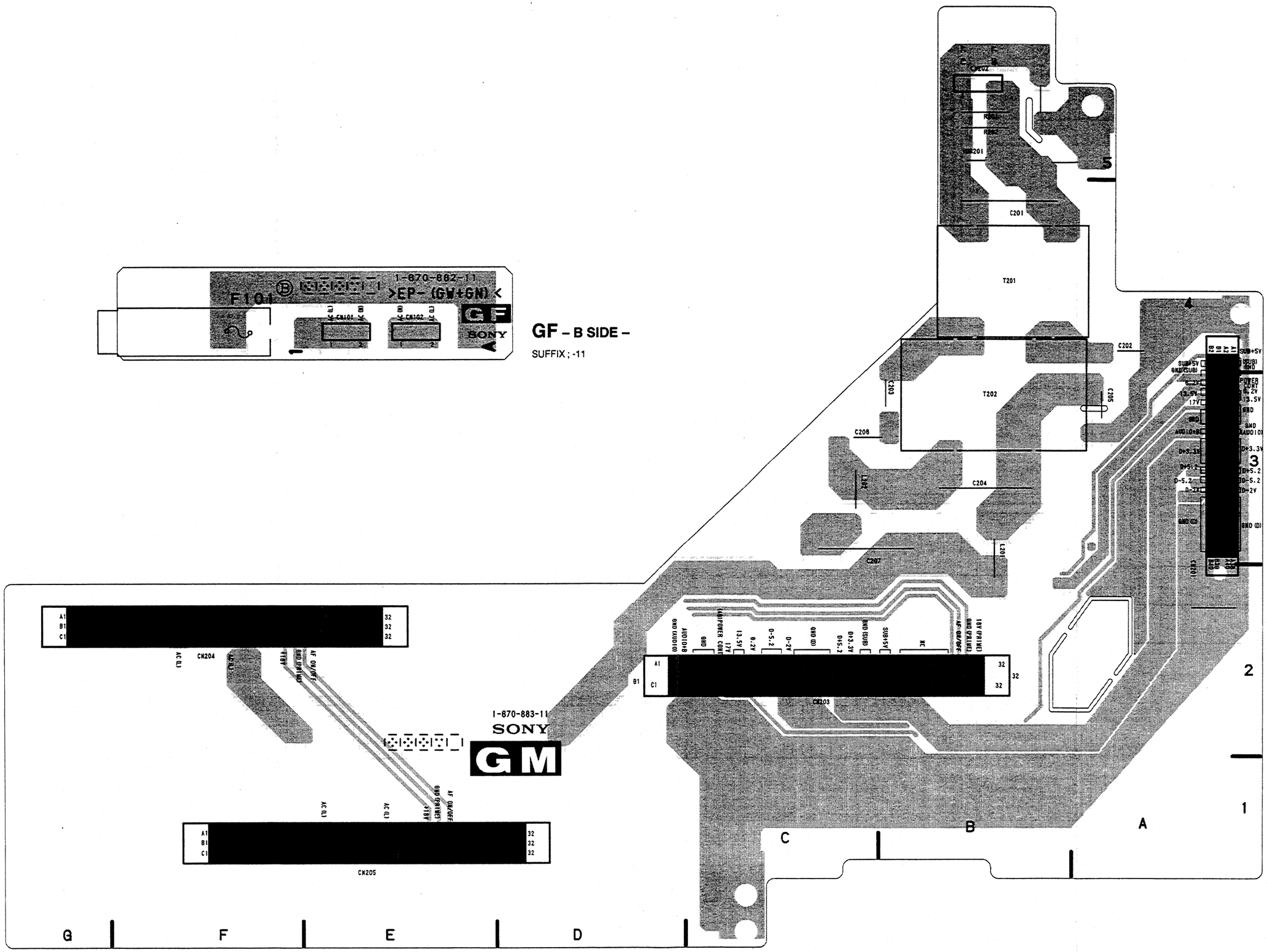


- Refer to page 9-68 for Printed Wiring Board
- Refer to page 9-67 for IC Block Diagrams



GF – B SIDE –

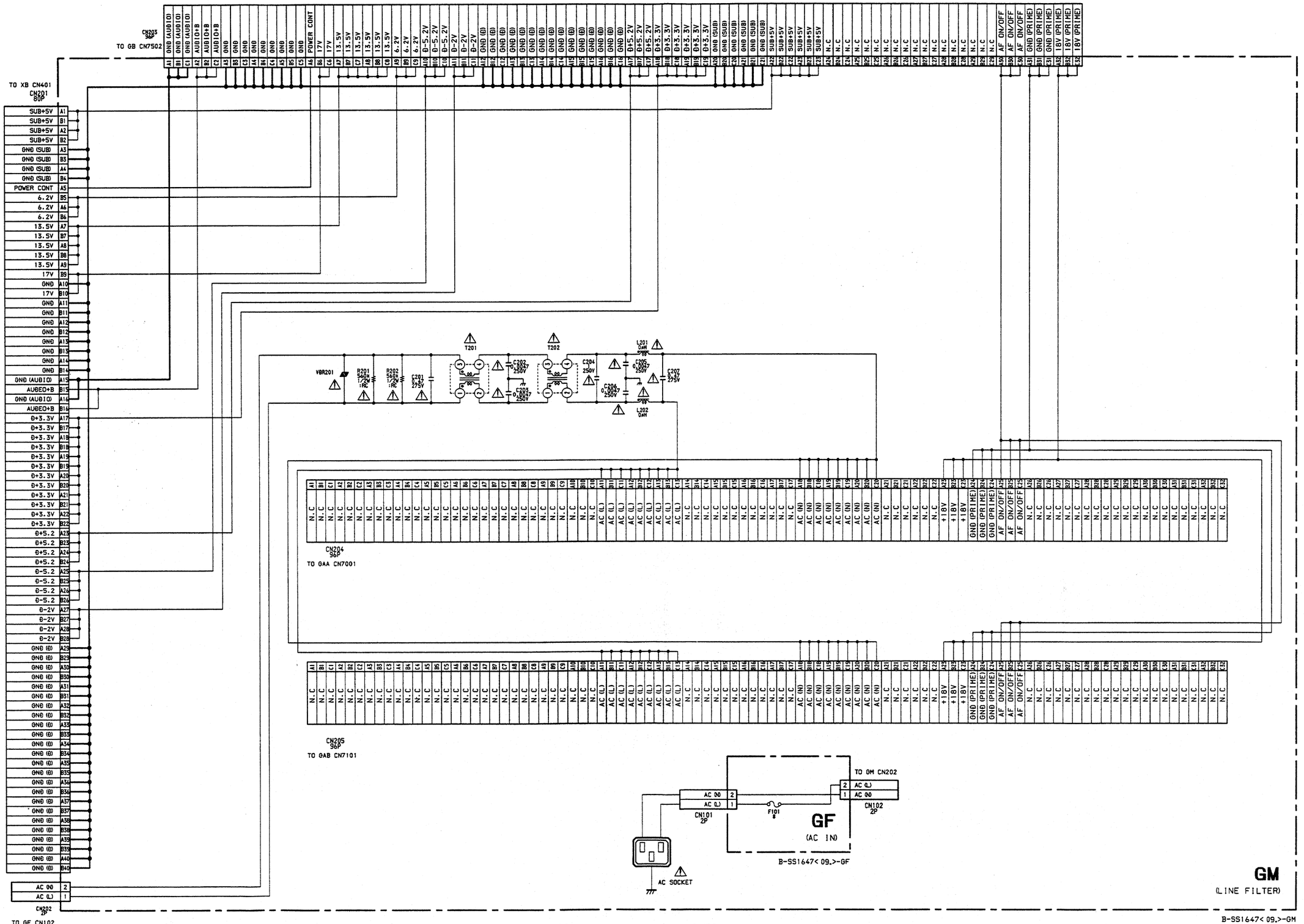
SUFFIX ; -11

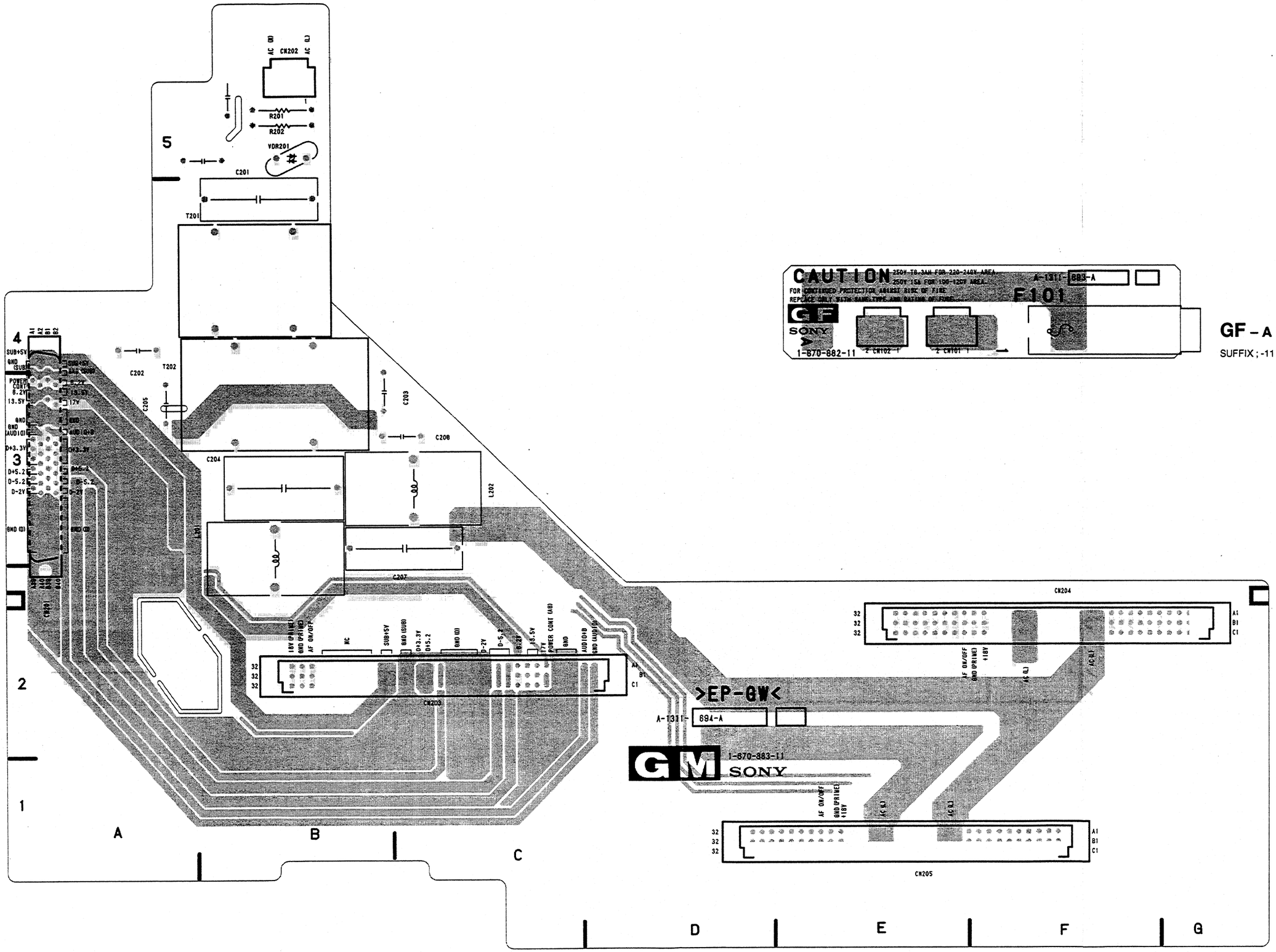


GM – B SIDE –

SUFFIX ; -11

• Refer to page 9-71, 9-73 for Printed Wiring Board





GF – A SIDE –

SUFFIX ; -11

GM – A SIDE –

SUFFIX ; -11

9-73 9-73

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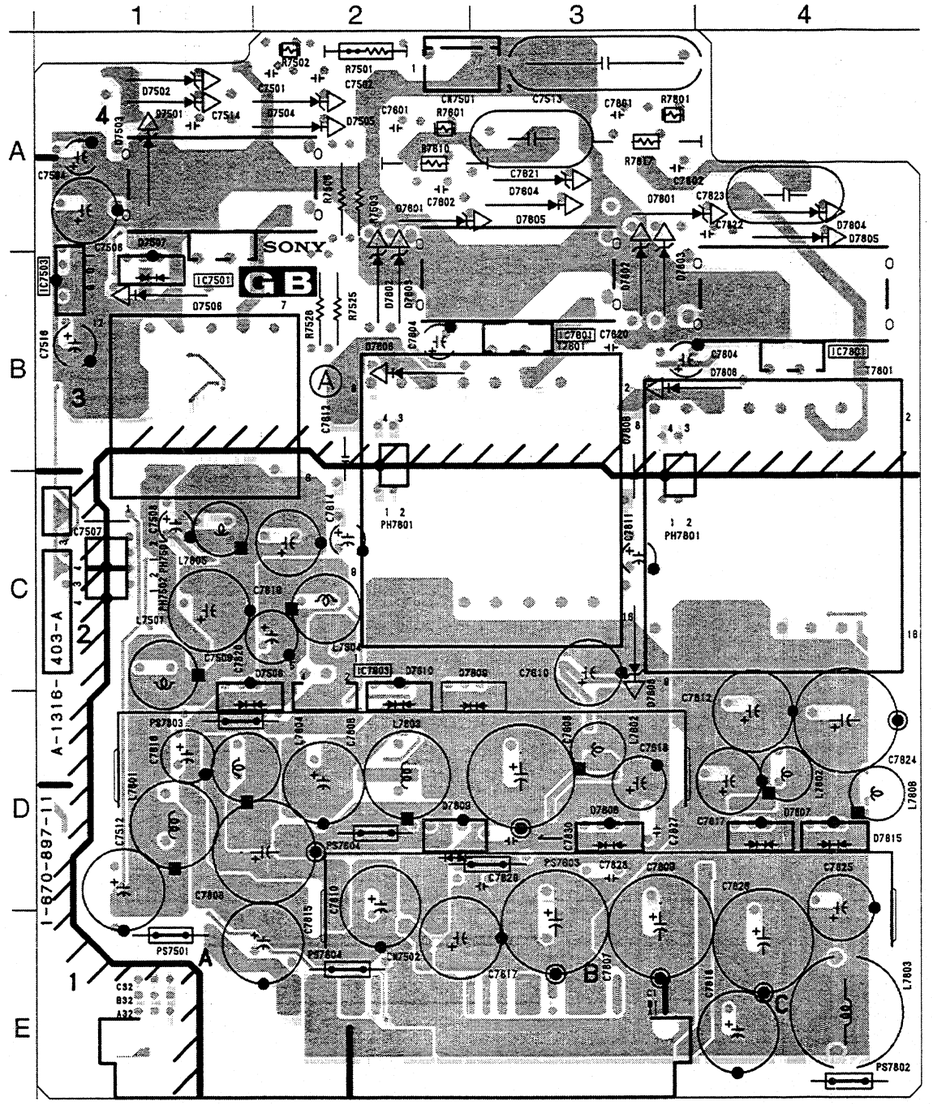
GB
–
1-670-897-11

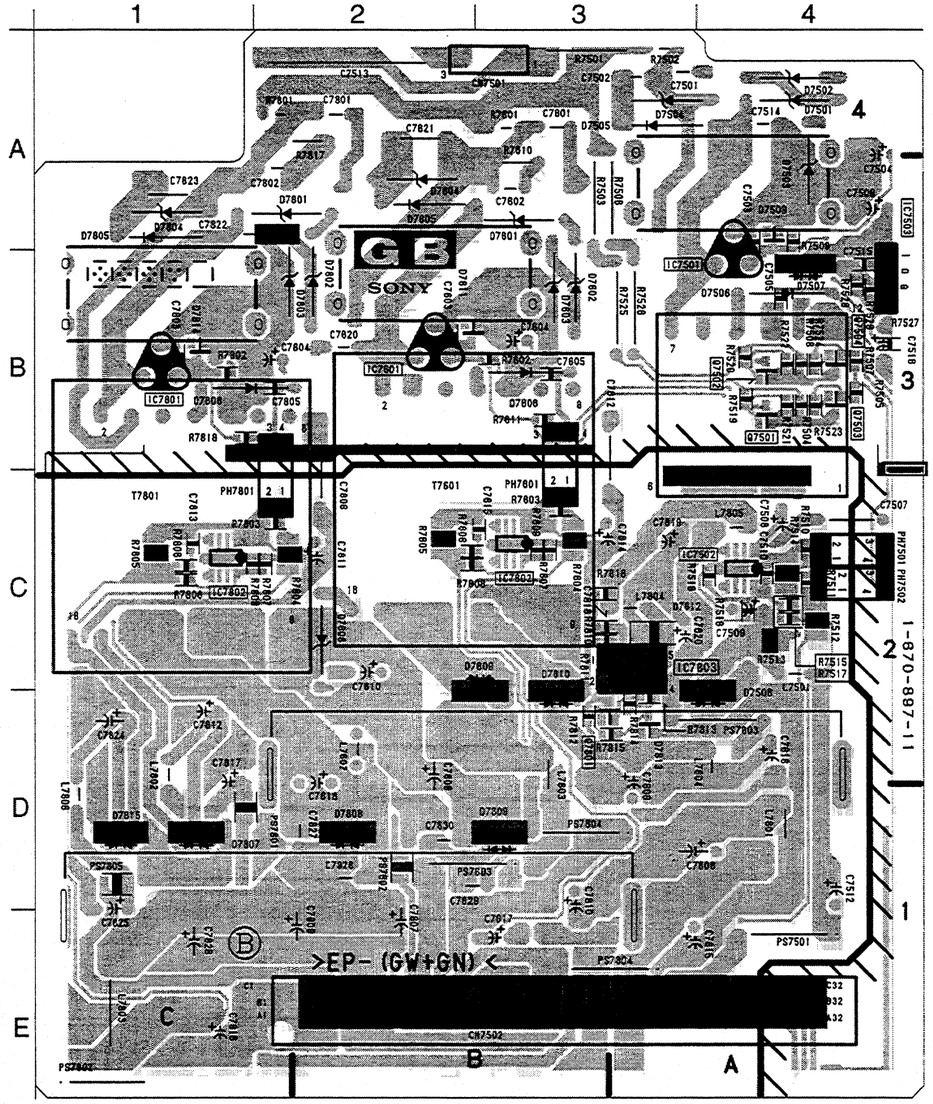
D7501	*A-4
D7502	*A-4
D7503	*A-4
D7504	*A-3
D7505	*A-3
D7506	*B-4
D7507	*B-4
D7508	*D-4
D7509	*A-4
D7601	*A-3
D7602	*B-3
D7603	*B-3
D7604	*A-2
D7605	*A-2
D7606	*B-3
D7608	*C-2
D7609	*C-3
D7610	*C-3
D7611	*B-2
D7801	*A-2
D7802	*B-2
D7803	*B-2
D7804	*A-1
D7805	*A-1
D7806	*B-1
D7807	*D-1
D7808	*D-2
D7809	*D-3
D7812	*C-3
D7813	*D-3
D7814	*B-1
D7815	*D-1
IC7501	*B-4
IC7502	*C-4
IC7503	*B-4
IC7601	*B-2
IC7602	*C-3
IC7801	*B-1
IC7802	*C-1
IC7803	*C-3
Q7501	*B-4
Q7502	*B-4
Q7503	*B-4
Q7504	*B-4
Q7801	*D-3

*:B Side mount



GB – A SIDE –

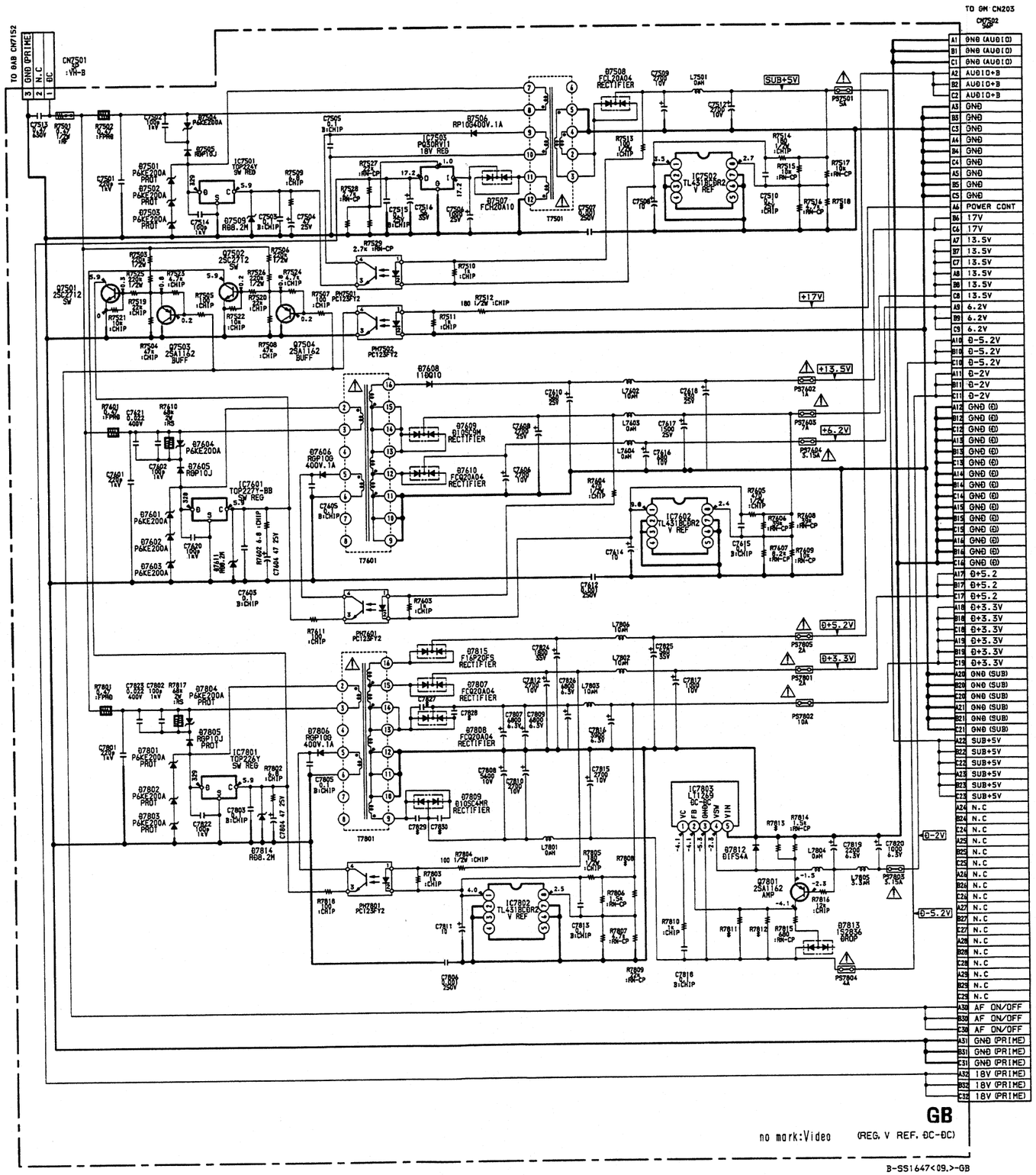
SUFFIX ; -11



GB– B SIDE –

SUFFIX ; -11

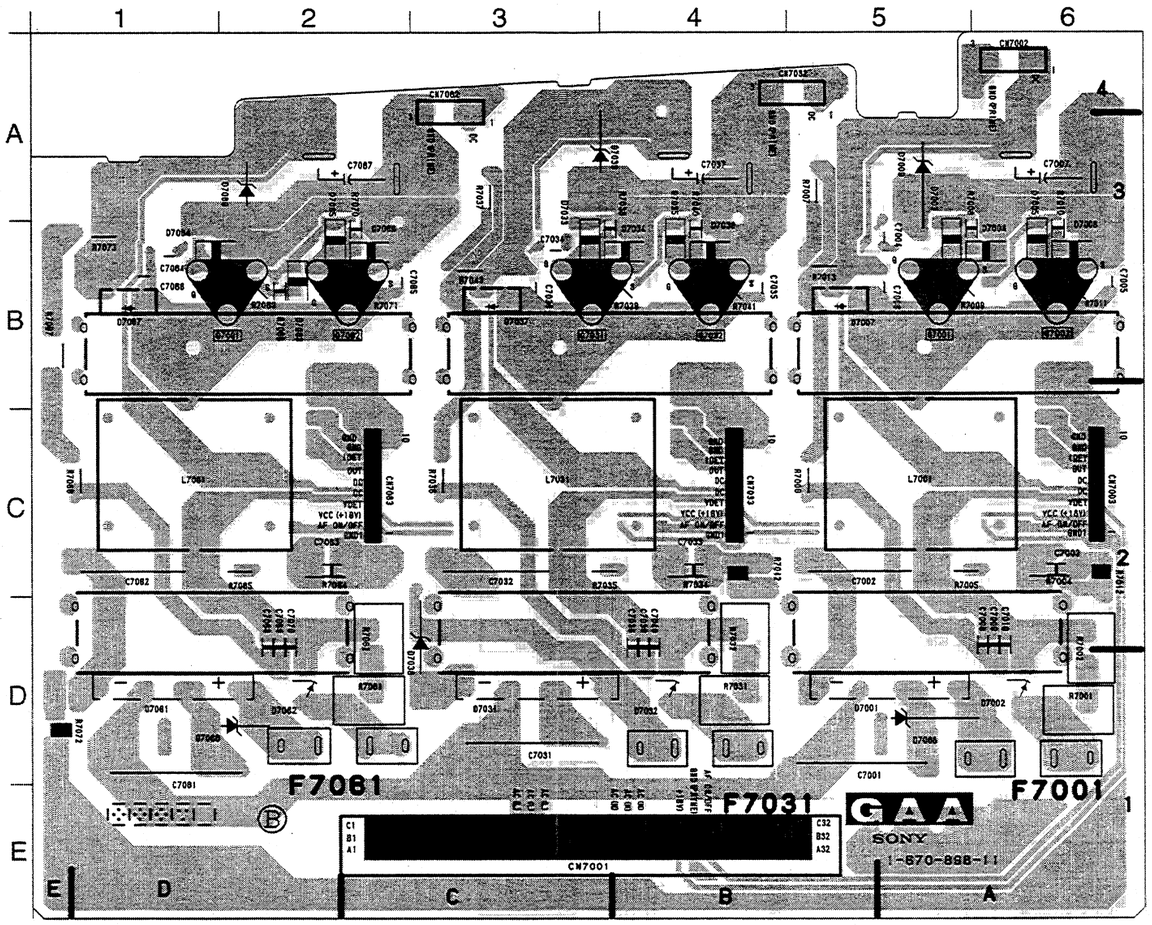
• Refer to page 9-74 for Printed Wiring Board



9-75 9-75

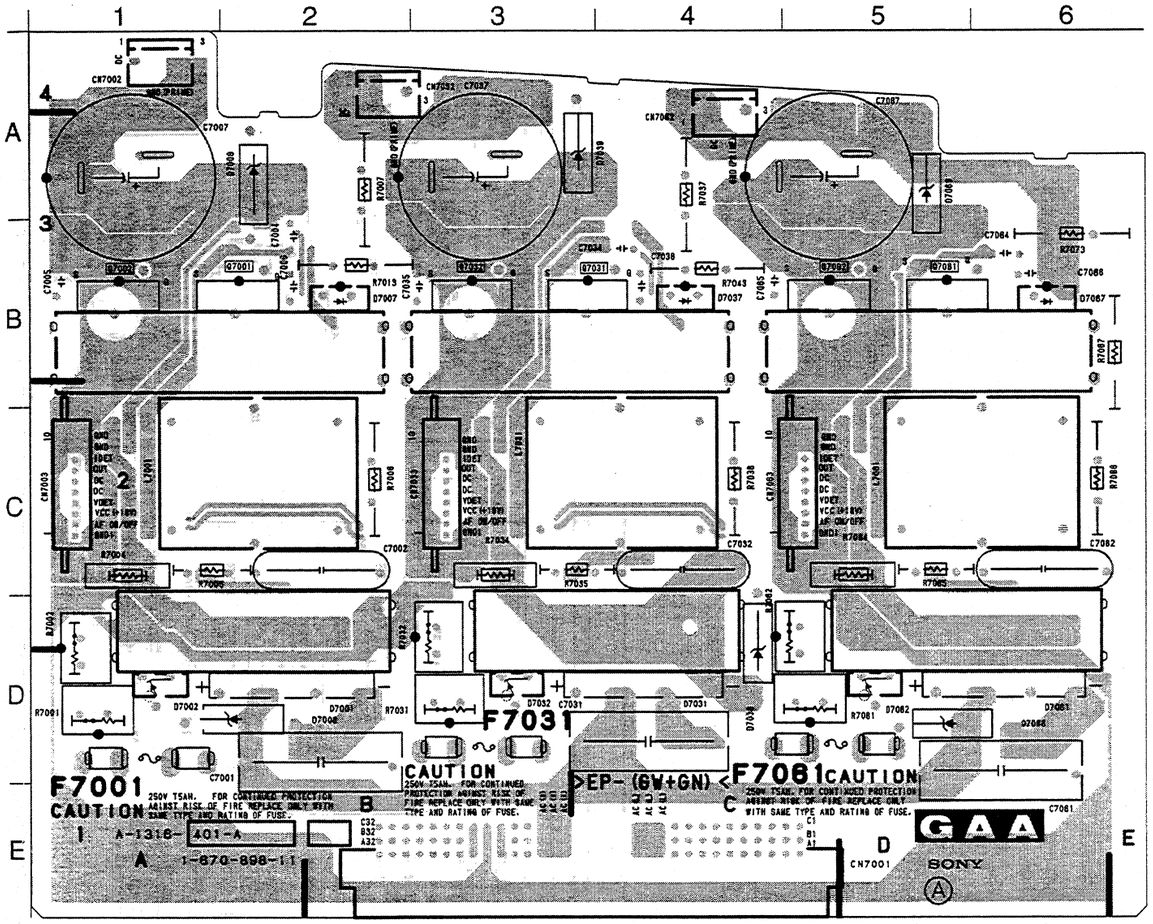
1 2 3 4 5

A | B | C | D | E | F | G | H



GAA – B SIDE –

SUFFIX ; -11



GAA – A SIDE –

SUFFIX ; -11

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GAA
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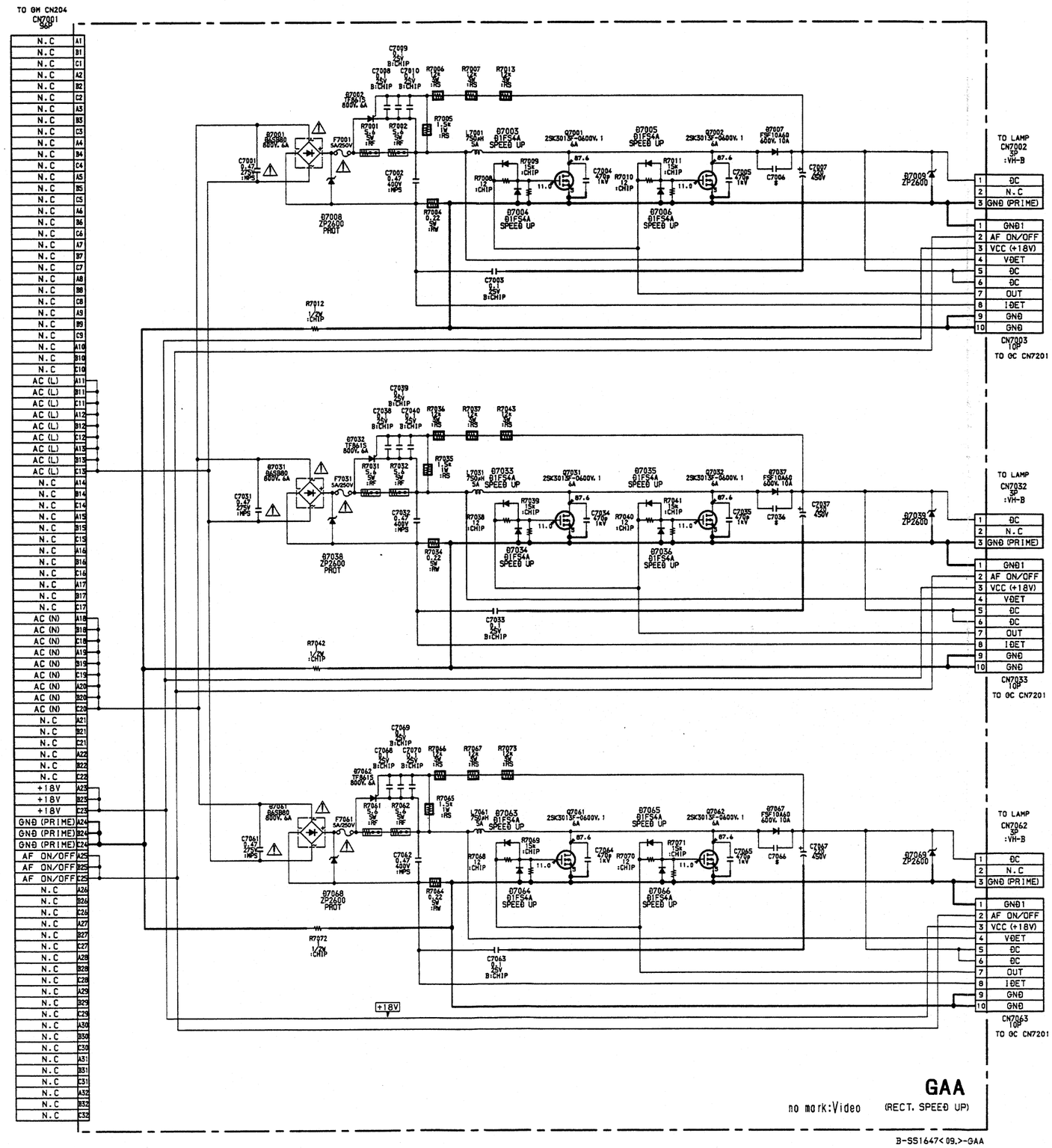
1-670-898-11

D7001	*D-5	Q7001	*B-5
D7002	*D-6	Q7002	*B-6
D7003	*A-5	Q7031	*B-3
D7004	*B-6	Q7032	*B-4
D7005	*A-6	Q7061	*B-2
D7006	*B-6	Q7062	*B-2
D7007	*B-5		
D7008	*D-5	*:B Side mount	
D7009	*A-5		
D7031	*D-3		
D7032	*D-4		
D7033	*A-3		
D7034	*B-4		
D7035	*A-4		
D7036	*B-4		
D7037	*B-3		
D7038	*D-3		
D7039	*A-4		
D7061	*D-1		
D7062	*D-2		
D7063	*B-2		
D7064	*B-1		
D7065	*A-2		
D7066	*B-2		
D7067	*B-1		
D7068	*D-1		
D7069	*A-2		

• Refer to page 9-76 for Printed Wiring Board



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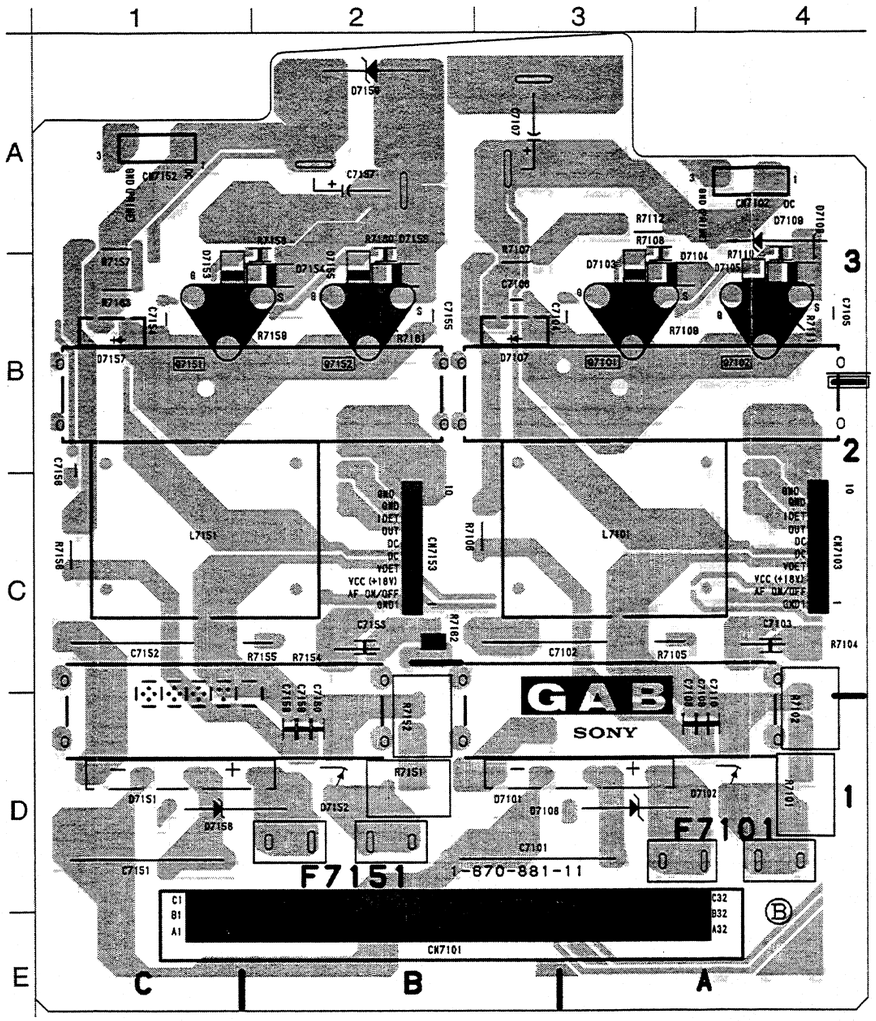
GAB
–
1-670-881-11

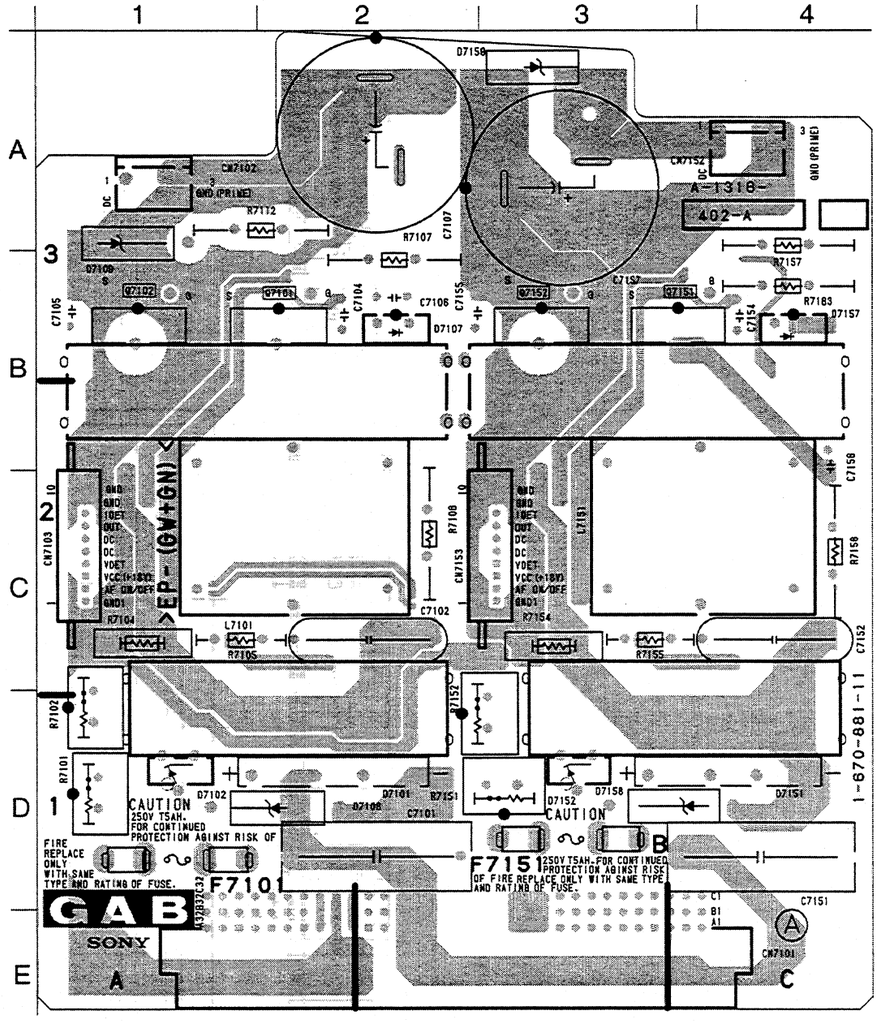
D7101	*D-3
D7102	*D-4
D7103	*B-3
D7104	*B-3
D7105	*B-4
D7106	*B-4
D7107	*B-3
D7108	*D-3
D7109	*A-4
D7151	*D-1
D7152	*D-2
D7153	*B-1
D7154	*B-2
D7155	*B-2
D7156	*B-2
D7157	*A-2
D7158	*D-1
D7159	*A-2
Q7101	*B-3
Q7102	*B-4
Q7151	*B-1
Q7152	*B-2

*:B Side mount



GAB – B SIDE –

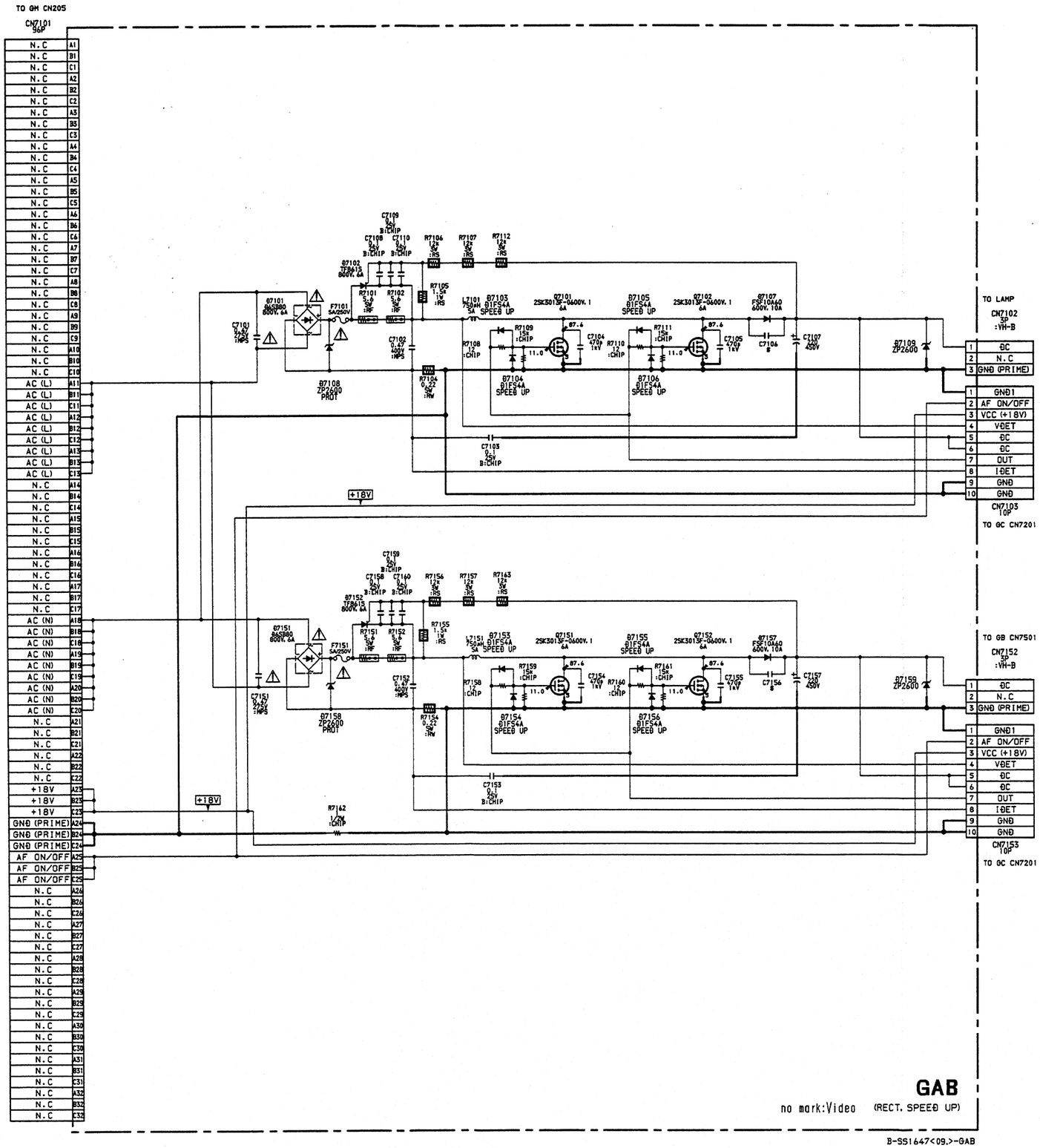
SUFFIX ; -11

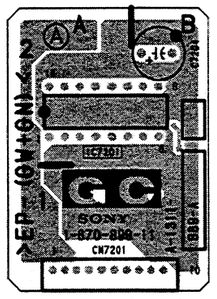


GAB – A SIDE –

SUFFIX ; -11

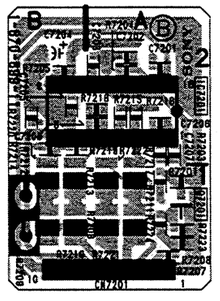
• Refer to page 9-78 for Printed Wiring Board





GC – A SIDE –

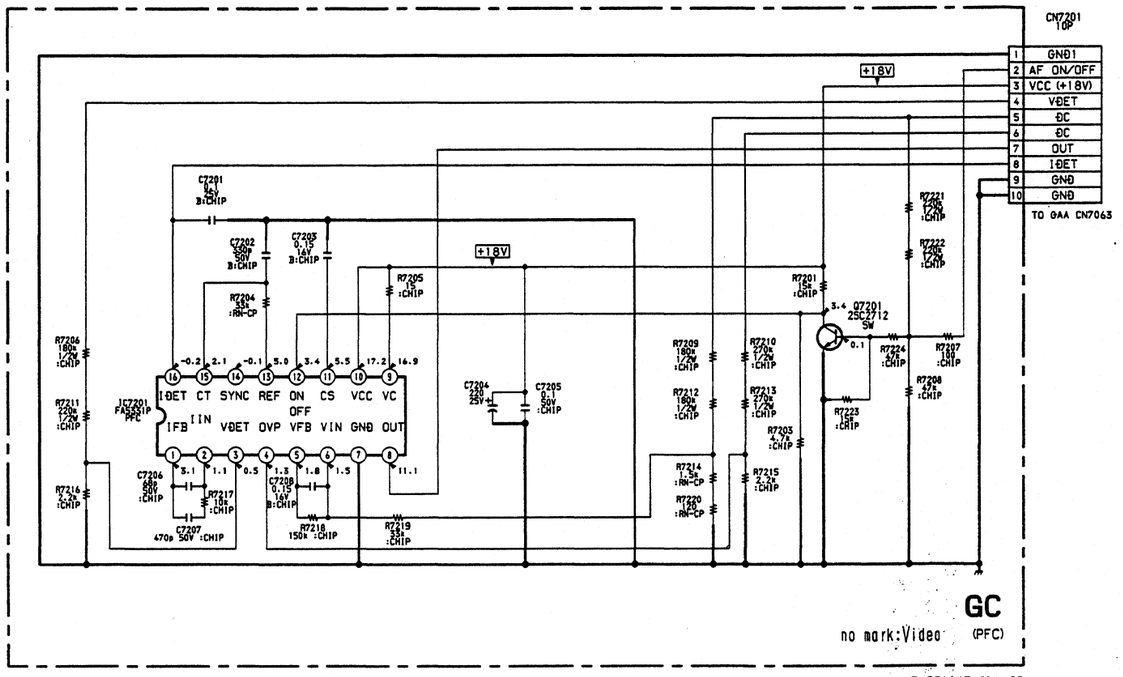
SUFFIX ; -11



GC – B SIDE –

SUFFIX ; -11

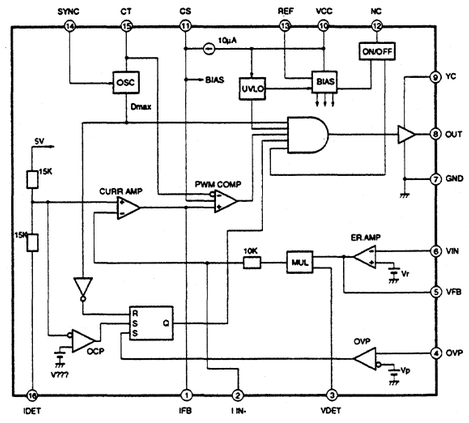
• Refer to page 9-80 for Printed Wiring Board

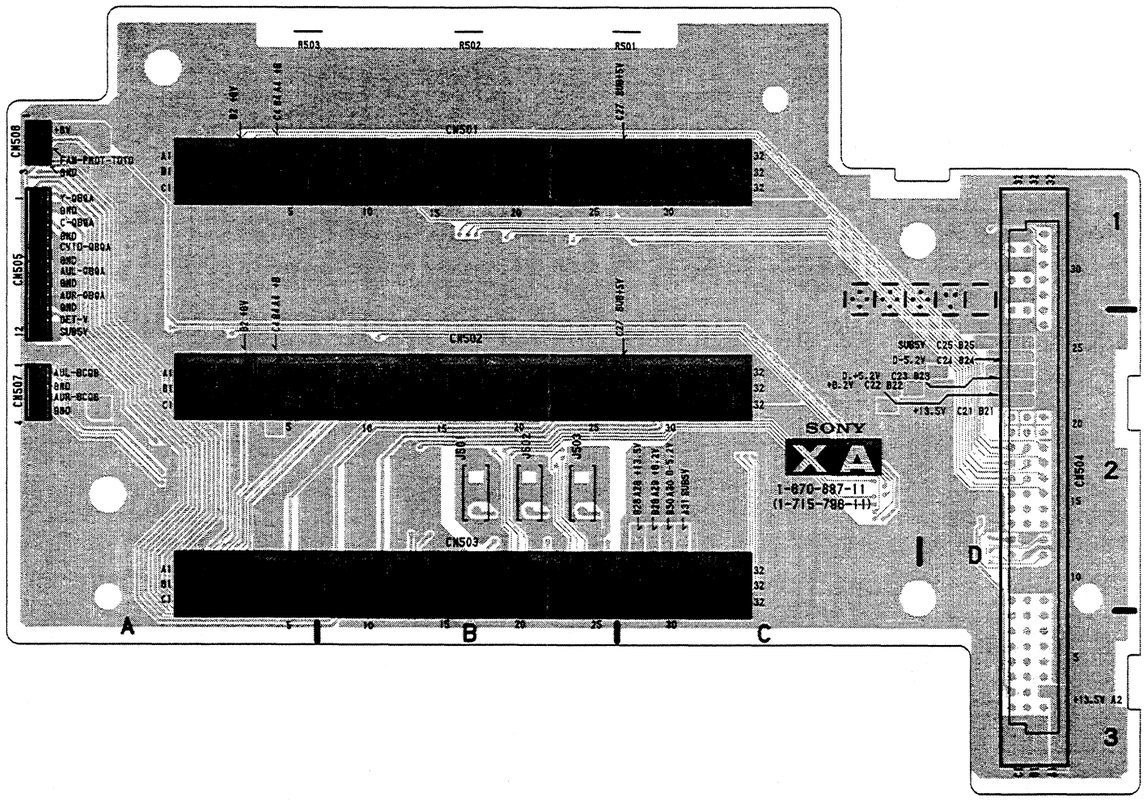


B-S51647<09,>-GC

GC Board IC Block Diagram

FA5331P (IC7201)

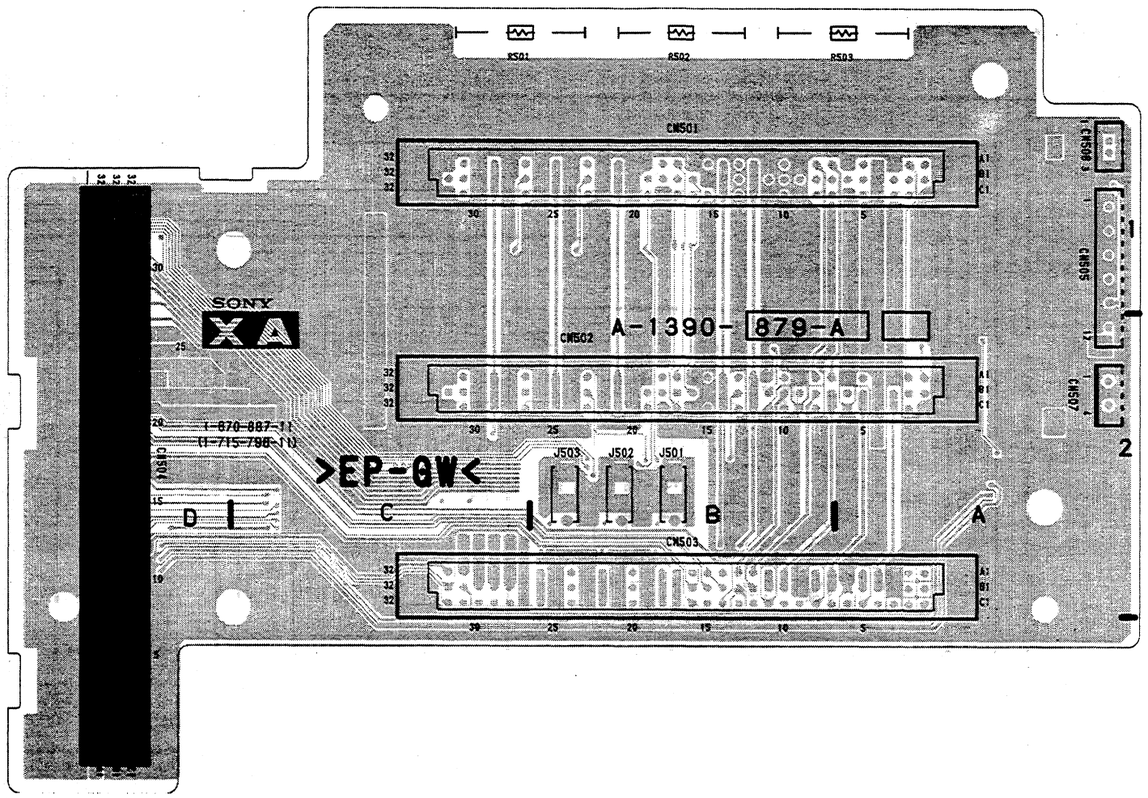




XA – B SIDE –

SUFFIX ; -11

9-82

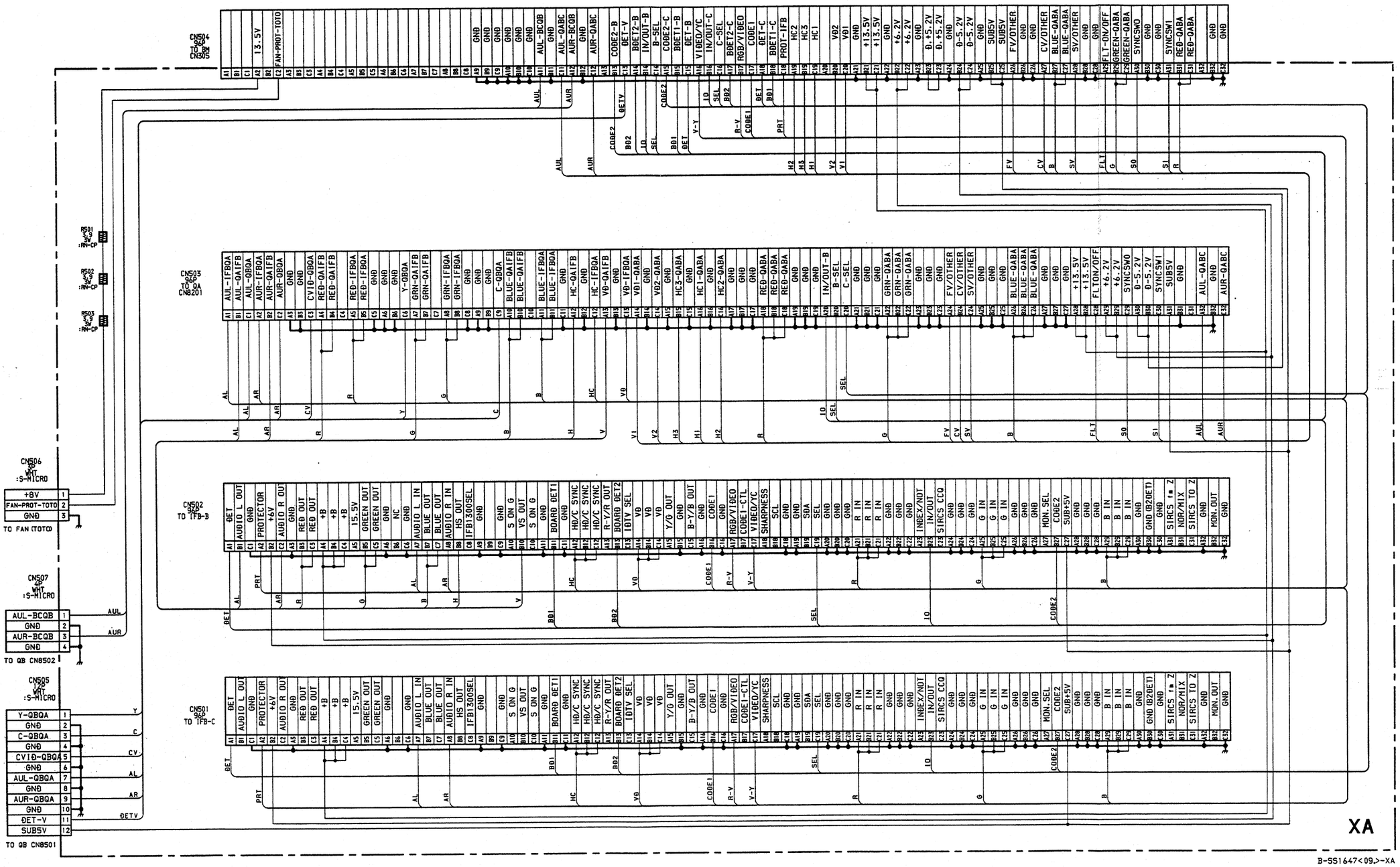


XA – A SIDE –

SUFFIX ; -11

9-82

• Refer to page 9-82 for Printed Wiring Board



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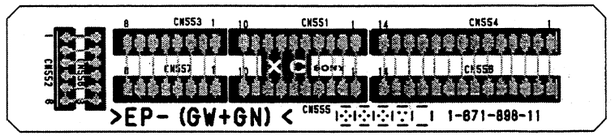
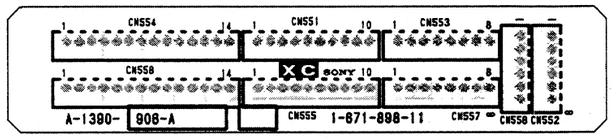


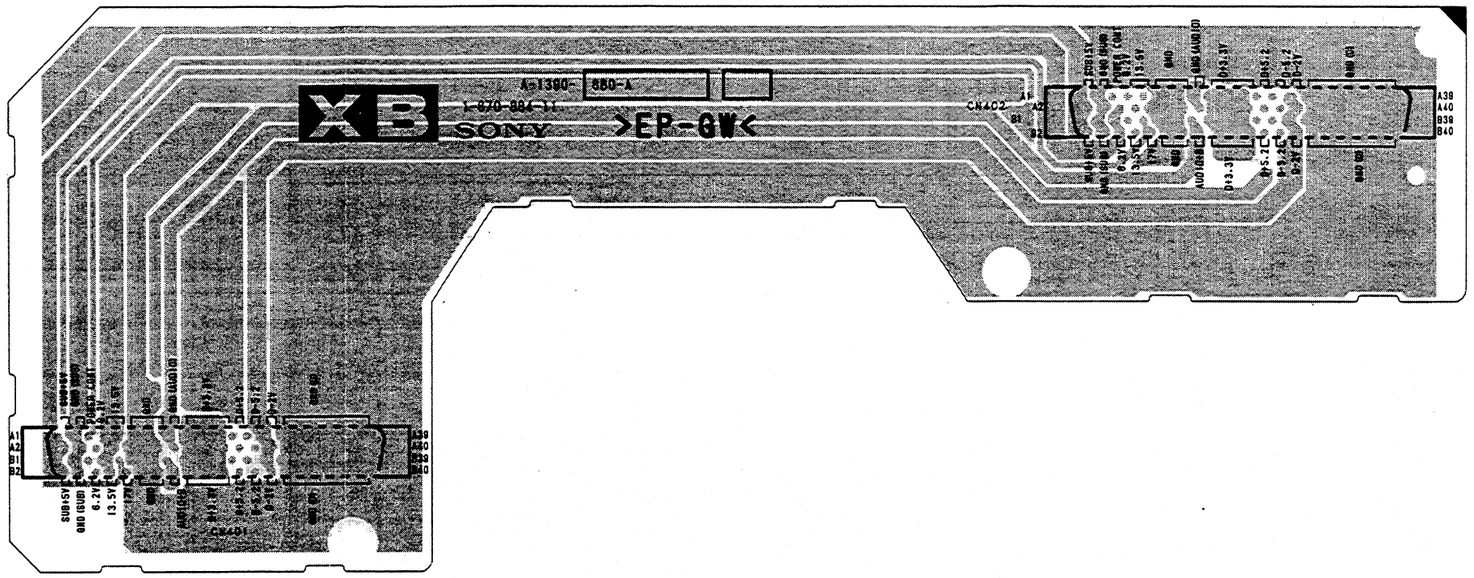
XC – B SIDE –

SUFFIX ; -11



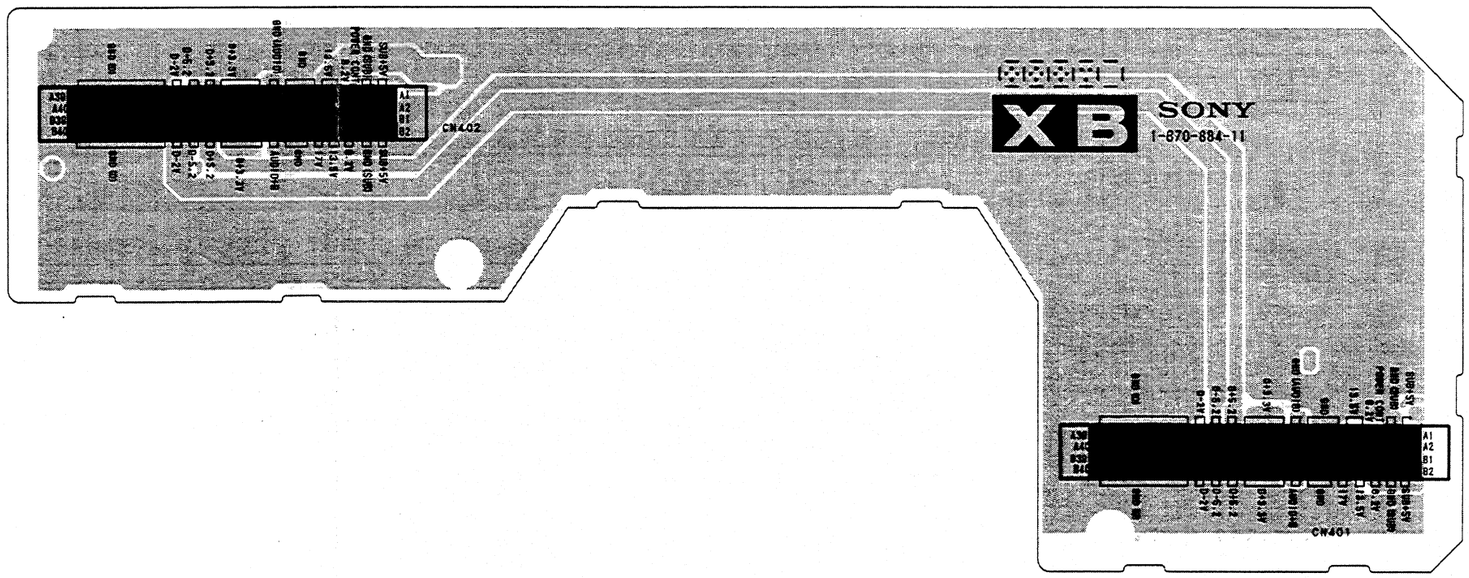
XC – A SIDE –

SUFFIX ; -11



XB – A SIDE –

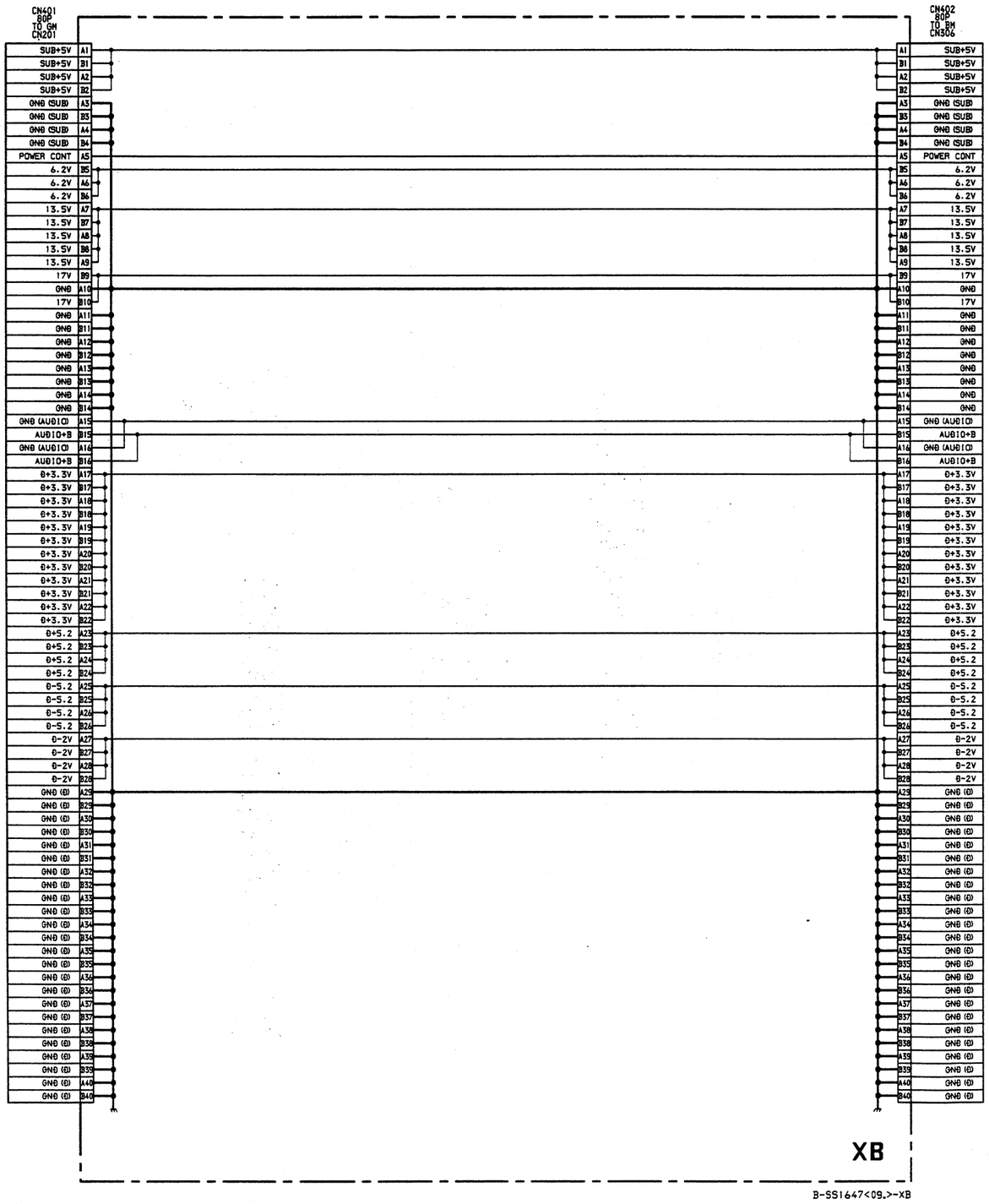
SUFFIX ; -11

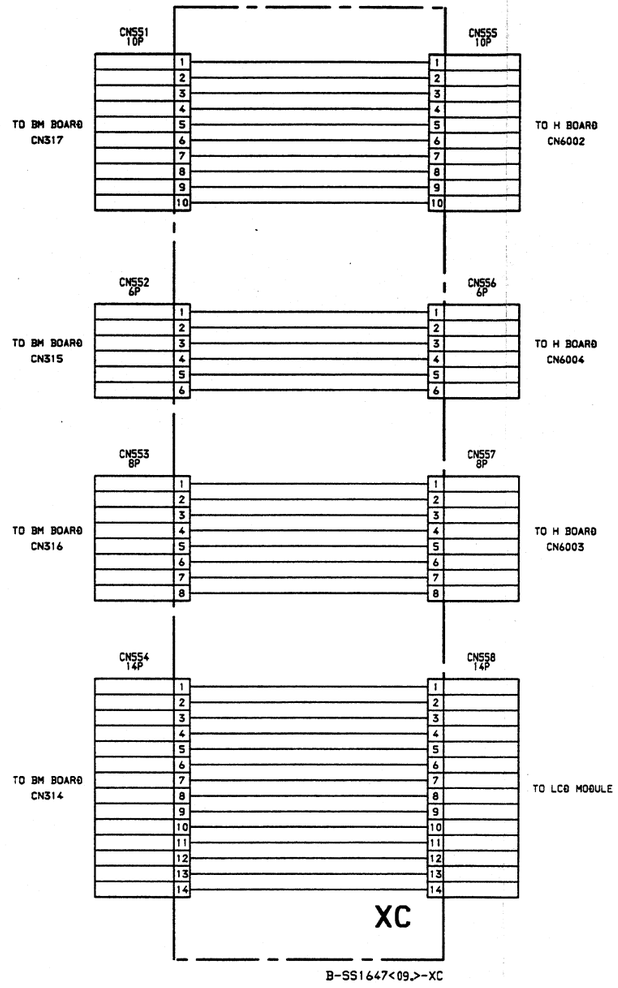


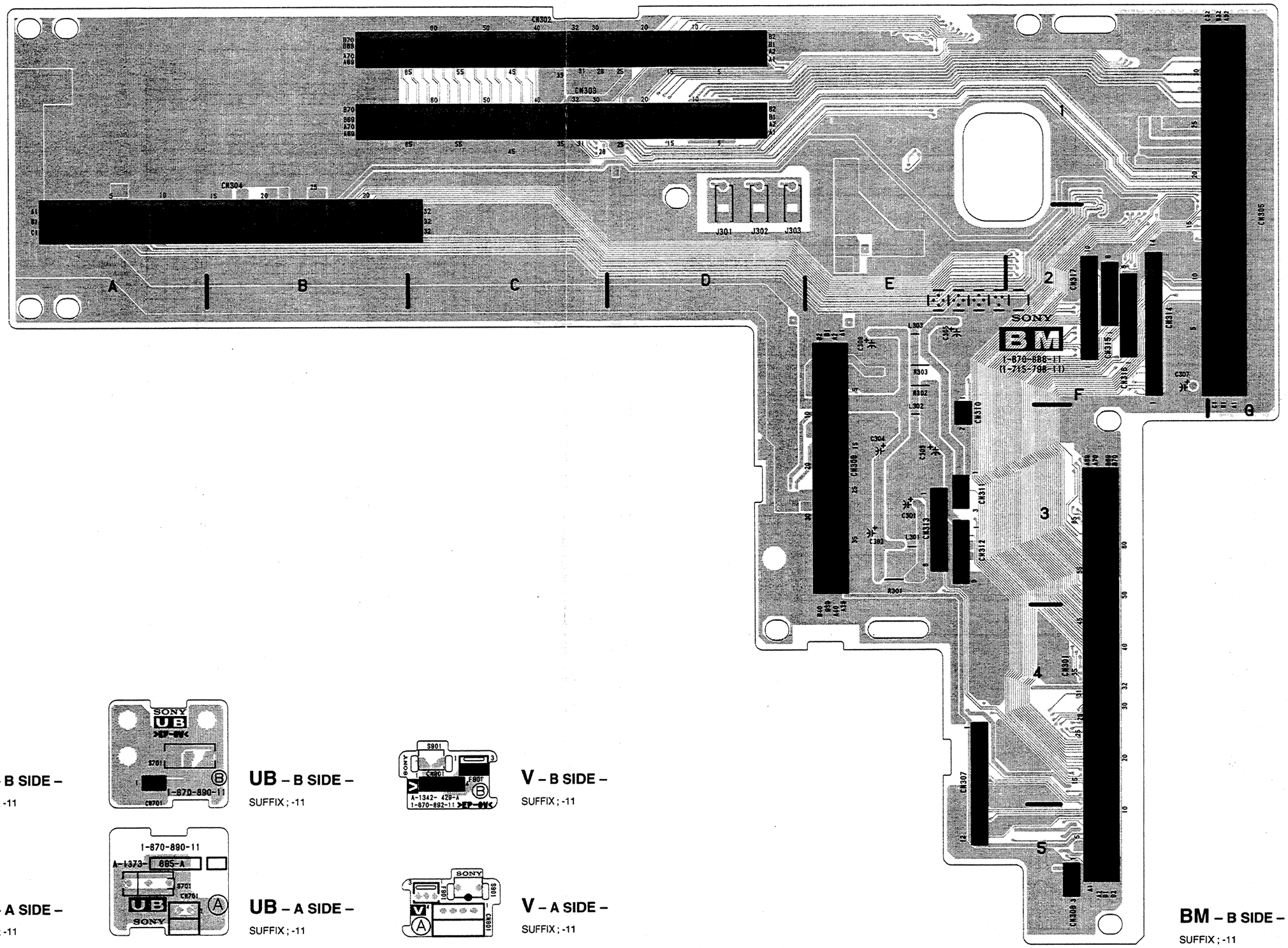
XB – B SIDE –

SUFFIX ; -11

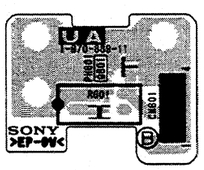
• Refer to page 9-84 for Printed Wiring Board



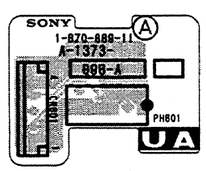




BM – B SIDE –
SUFFIX ; -11



UA – B SIDE –
SUFFIX ; -11



UA – A SIDE –
SUFFIX ; -11

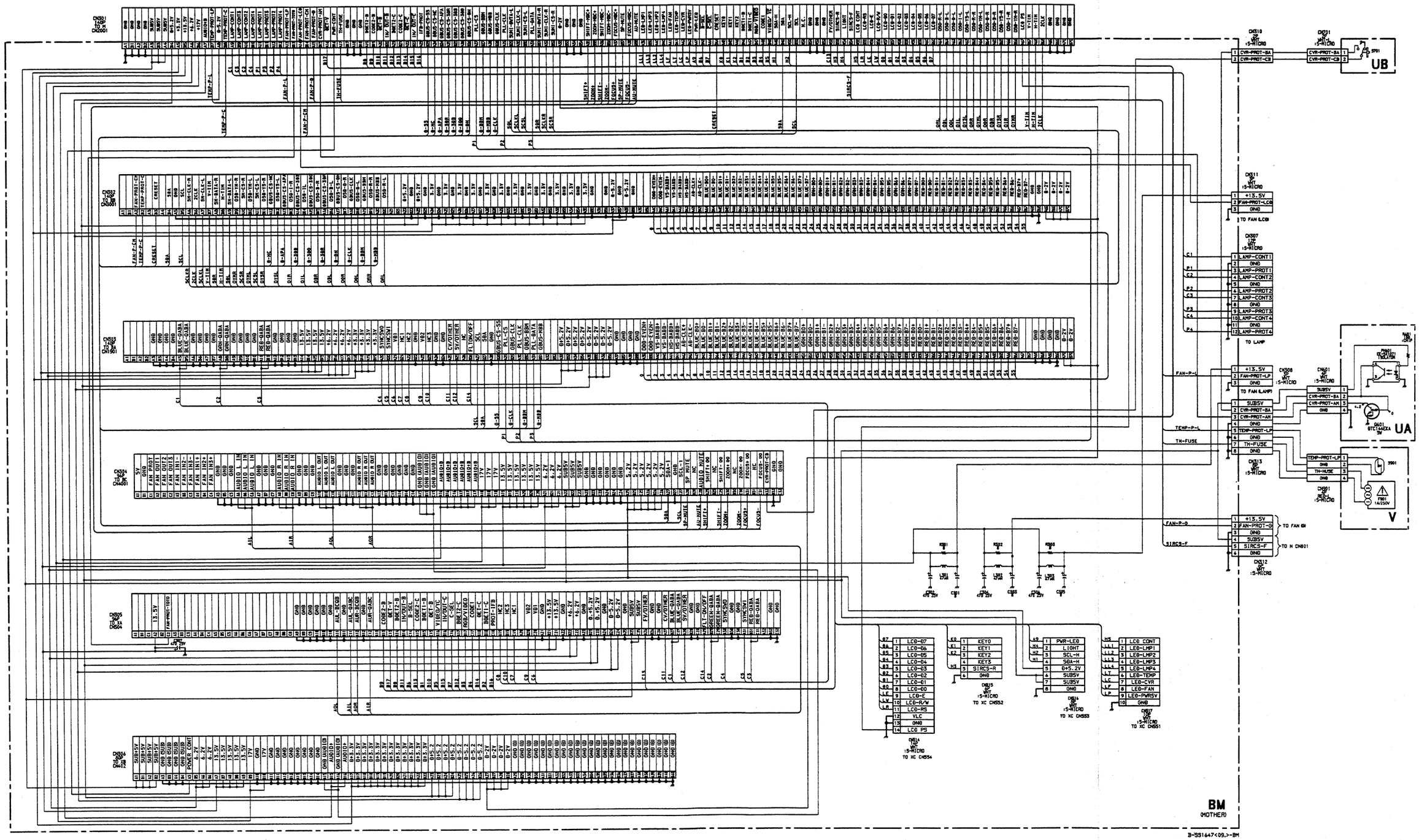
UB – B SIDE –
SUFFIX ; -11

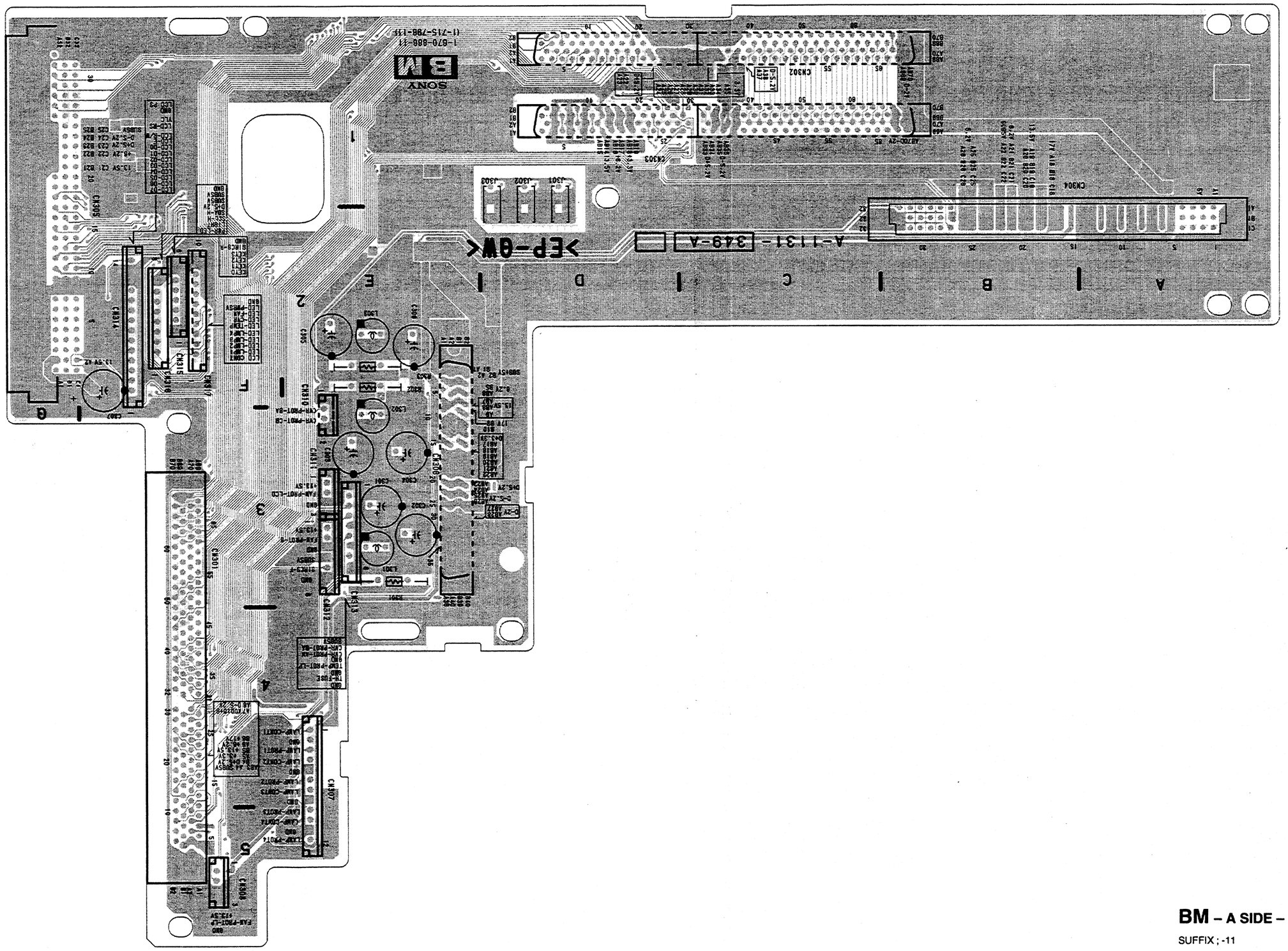
UB – A SIDE –
SUFFIX ; -11

V – B SIDE –
SUFFIX ; -11

V – A SIDE –
SUFFIX ; -11

• Refer to page 9-86, 9-88 for Printed Wiring Board

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